MAY '60

MODERN TEXTILES

MAGAZINE

Specializing in Man-Made Fibers and Blends since 1925

FIBERS

FABRICS

FINISHES

SPENCER LOVE—the man who built Burlington—
story page 33

THIS MONTH

GUIDE TO ATLANTIC CITY MACHINERY SHOW

Advances in pressure beam dyeing

How to pay for new machinery

Tests for knot quality

New rayon micro-tape

"No Finer Combination"

DRAPER CORPORATION

HOPEDALE, MASS.

ATLANTA, GA. • GREENSBORO, N. C. • SPARTANBURG, S. C.

ATMA Parade of Progress

Automatic tube trimmer; Sonoco-designed, Sonoco-built.

Specialized machinery for precision products!

Sonoco designs and builds most of its highly specialized production machinery in its own shops. In the past 60 years, Sonoco engineering accomplishments have included efficient cone and tube machines and countless other exclusive technical developments. As a result, the quality of Sonoco cones, tubes, cores and spools has shown a *pronounced improvement* throughout the years. And, as new developments take place in the textile industry, Sonoco builds new equipment to manufacture products for use in these processes and methods–products which meet customer requirements.

Sonoco has more than half a century experience in producing all types of paper textile carriers. Completely integrated manufacturing facilities assure close quality control. *Only Sonoco,* in its field, provides the necessary knowledge, skill and capacity to meet the ever-changing techniques of the textile industry. Let Sonoco experience help you!

SONOCO
Products for Textiles

ATMA
American Textile Machinery Exhibition - International
Booth Nos. 82 and 83
May 23-27, 1960

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1960

MODERN TEXTILES MAGAZINE

Modern Textiles Magazine
Established 1925

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American Cotton Manufacturers Institute, Inc. ..... 1501 Johnston Bldg., Charlotte, N. C.
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Synthetic Organic Chemical Manufacturers Association ..... 41 E. 42nd St., New York
Textile Distributors Institute, Inc. ..... 469 Seventh Ave., New York

CONTENTS

Publisher's Viewpoint

Meet Us in Atlantic City! 31

Features

Burlington's Head Man 33
by Jerome Campbell

New Worsted System Machines 35

Textile Mergers 36
by Leland S. Liang

Tests for Checking Knotting Quality 46
by Erb N. Ditton

New Developments in Pressure Beam Dyeing 48
by Walter J. Newcomb & George C. Ward

Atlantic City Show Gateway to Textiles' Future 56

Factors Help Modernize Mills 74

Easier Rack-Stitch Effects 80

American Textile Machinery Exhibition—Visitors' Guide 83

American Association for Textile Technology Papers

Rovana—Dow's New Saran Micro-Tape 99
by Nelson W. Abernethy

Departments

Worldwide Textile News 32

New Fabrics—New Yarns 44

TDI News and Comments 45

Dyeing and Finishing Notes 72

Textile Newsbriefs 103

Yarn Prices 107

Calendar of Coming Events 122

Advertisers Index 122

MORE THAN 3½ MILLION SPINDLES NOW EQUIPPED WITH ROBERTS HIGH DRAFT

ROBERTS SPINNING NEWS

PUBLISHED BY ROBERTS COMPANY SANFORD, NORTH CAROLINA

SANFORD, NORTH CAROLINA, U. S. A. 1960

Roberts enters new textile machinery field

Adds Worsted Preparatory Equipment to Line of Spinning Frames

Roberts-Tematex ParaBlender with individual ball delivery.

Three new worsted system preparatory machines of latest design and technological improvement — ParaDrafters, AutoEveners, and ParaBlenders —have been added to the Roberts Company line under the name Roberts-Tematex.

They are used in yarn spinning mills as well as in combing and top making plants to pin, parallelize, draft, and blend worsted and other long staple fibers in operations that precede roving and spinning.

Roberts-Tematex machines are considerably more rugged than other machines which are available, hold their settings well and provide high production performance.

The *ParaDrafter* parallelizes and drafts the fibers and can be combined with the *AutoEvener* which automatically evens the weight of the delivered sliver through electronic and mechanical means to within ±1%, from an entering weight variation of up to ±20%.

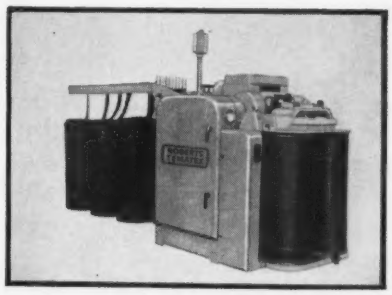
ParaBlenders also parallelize and draft but in combination with a blending operation that provides many doublings and sandwich blends the fibers.

ROBERTS-TEMATEX PARADRAFTER • 8″ wide pinning field, 88 fallers per head, flat pins • Three thread faller screws • Fallers .238″ thick, pitch .354″, 1200 drops per minute • Entering sliver up to 3500 grains per yard • Draft ratios 5 to 15 • Net production delivery up to 270 pounds per hour • Creels for up to 12 cans or balls or combination of cans and balls • Delivery to cans 15″ x 36″ up to 24″ x 48″ • Delivery to balls up to 24″ diameter x 18″ wide (26 pounds) • Hydraulic weighting of the delivery rolls • Hydraulic lifting of head for inspection • Shock absorbers for faller drops • Gradual introduction of fallers into sliver • Automatic stop motions with indicator board to show location of stoppage • Central lubrication • Simple changing of draft and pressures • Static eliminator • With single, bicoil, dual or quad delivery

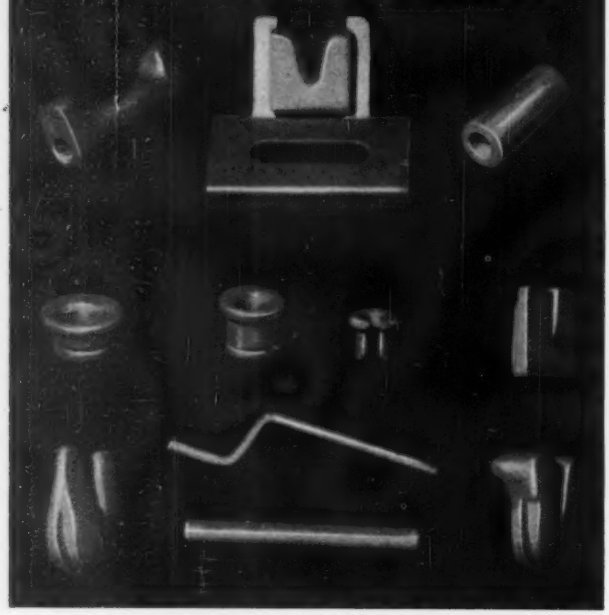
ROBERTS-TEMATEX AUTOEVENER • Automatic and instantaneous correction of sliver weight • Corrects entering sliver with plus or minus 20% variation • Corrects delivered sliver weight to plus or minus 1% • Mechanical-electrical operation of the measuring, delay and variation units • Fitted only to single head, single delivery ParaDrafter • All ParaDrafter technical details apply

ROBERTS-TEMATEX PARABLENDER • All ParaDrafter technical details as above apply • Melange blending of a high number of slivers • Net Production 400 to 500 pounds per hour • Combines two ParaDrafter heads • Individual ball delivery for each head so machine can be used as two parallel ParaDrafters • Arrangement for combining and sandwich blending finished slivers onto a center ball delivery • Pressure spray oiling for center ball

PARADRAFTER arranged for can feed and dual delivery.



Remarkable "TITAN-EIGHT"
THREAD GUIDES BY LAMBERTVILLE!



RADICAL NEW METHOD OF PROCESSING MEANS

LOWER COST!
FASTER DELIVERY!

Now, for the first time . . . thread guides of "*Titan-Eight*"—the smoothest, most durable material available—are being offered at low cost with fast delivery! A completely new method of processing, developed by Lambertville, makes this possible. Any porcelain shape can be duplicated in "*Titan-Eight*". Send for free samples, for comparison in quality and price with your present guides. (Please specify shapes).

TITAN EIGHT

Lambertville Ceramic
AND MANUFACTURING COMPANY
LAMBERTVILLE, NEW JERSEY

LAMBERTVILLE: YOUR GUIDE TO BETTER OPERATIONS!

New Rayon Introduced

American Viscose Corp. is identifying its new multi-cellular rayon fiber as "Avlin." Known as RD 100 in its development stage, Avlin staple fiber is now in limited commercial production. Avlin rayon is reported to be the only fiber of its type on the market today. The unusual multi-cellular structure of the new product, according to George L. Storm, vice president of American Viscose's fibers division, "gives the fiber self-bonding properties which result in far greater firmness and bulk in fabrics."

Other properties of Avlin's unique cross section and cellular structure are said to be a crisp, dry hand and touch in fabrics, along with a light reflecting surface which contributes sparkle and glitter not obtainable in conventional rayons, Storm declared. These properties can be obtained in fabrics, he said, with only a minor percentage of Avlin in the blend.

As with the recently announced Avron and Avril rayons, use of the name Avlin will be confined to the fiber when used in fabrics, either 100% or in blends, which meet American Viscose Corp.'s standards of quality control. Samples of finished goods will be tested for fiber content, construction and performance for each end use application.

Storm further stated that American Viscose research men have now developed techniques to modify the rayon manufacturing process to gain greater control of the molecular structure of the fiber itself as well as its shape and dimension. These modifications involve new chemistry and new engineering throughout the entire process.

A product of cellulose chemistry research introduced to the market last year was Avisco XL rayon, which is marketed under quality control requirements as Avron rayon. This fiber achieves a level of strength and toughness in a rayon staple never before possible and permits the spinning of finer yarns than previously possible. More sheer and delicate fabric textures are said to be thus obtainable. The stress-strain characteristics of Avron make it an appropriate blending fiber for use with polyesters, acrylics and tri-acetates, Storm pointed out.

Fiber 40, control marketed as Avril rayon, is another American Viscose modified rayon. In this case, by increasing the wet modulus, maximum fabric stability is obtained, according to Storm. Fabrics made with this fiber can be Sanforized readily. Because of its resistance to caustic, Avril rayon fabrics can also be mercerized. Furthermore, the fiber's blending characteristics are completely compatible with cotton and most synthetics.

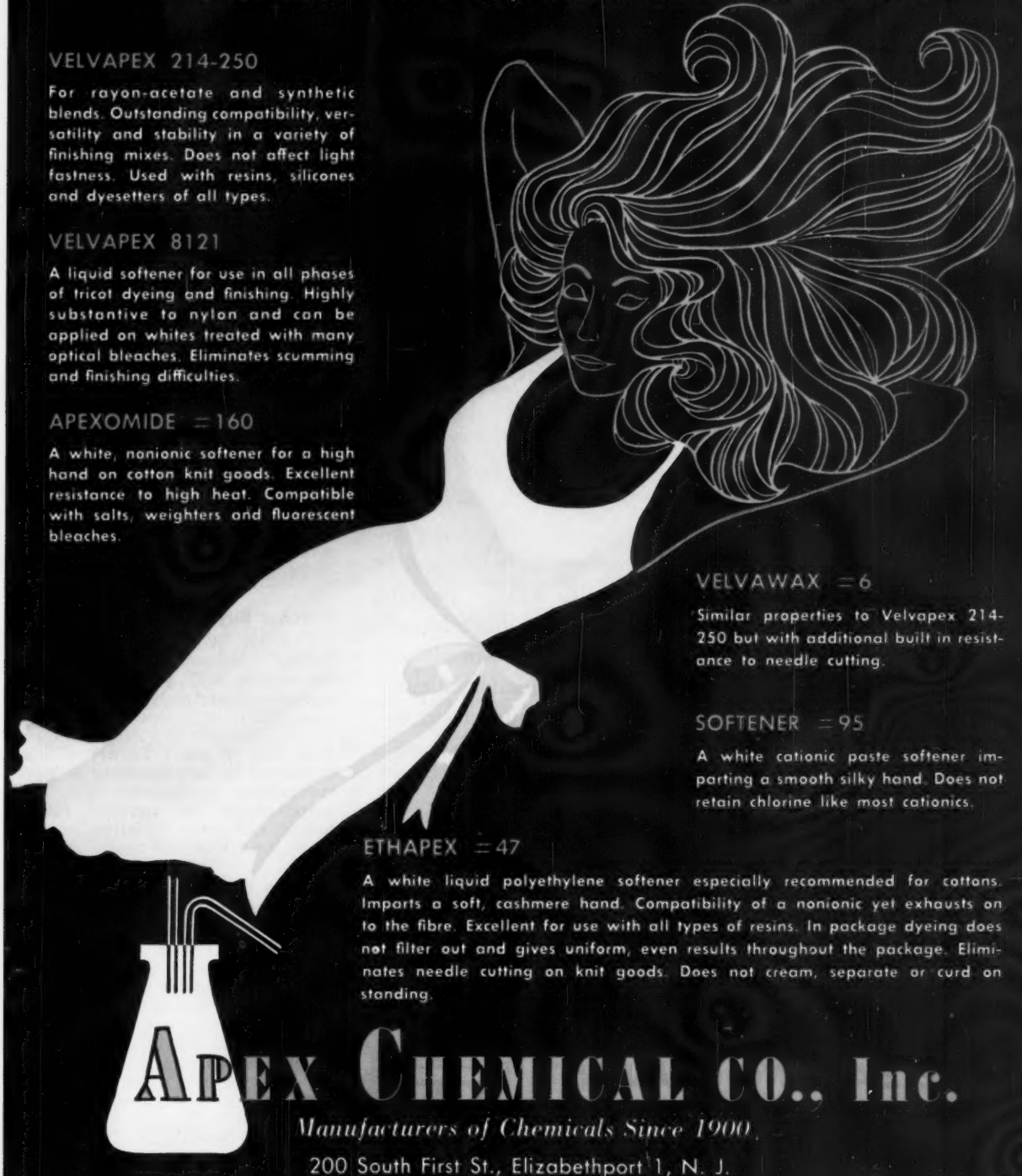
Merchandising programs are now being developed to move products made with these three special fibers in selected end uses into consumer hands. Initial Avron advertising is appearing in a variety of consumer publications at the present time. Trade promotion of Avril and Avlin is scheduled for late spring.

Improved Synthetics Predicted

Recent developments in polymer-chemistry have opened the door to more economical manufacture of synthetic fibers which are also more reactive to dyes and finishes, according to Dr. Herman Mark of the Brooklyn Polytechnic Institute. Advances in the development of co-polymerization and molecular grafting processes, Dr. Mark said, will permit modification of basic molecular structures or their construction for a particular end-use. The techniques also will permit manipulation of such properties as resiliency, moisture sensitivity and chlorine retention. Synthetic fibers, he said, now account for about 25% of the total fibers produced in the U.S.A., and this percentage is expected to increase tremendously by the end of this decade. Dr. Mark, a widely recognized authority on manmade fibers, is head of the Polymer Research section of the Institute.

APEX luxurious Softeners

. . . . available for every fibre and construction.



VELVAPEX 214-250

For rayon-acetate and synthetic blends. Outstanding compatibility, versatility and stability in a variety of finishing mixes. Does not affect light fastness. Used with resins, silicones and dyesetters of all types.

VELVAPEX 8121

A liquid softener for use in all phases of tricot dyeing and finishing. Highly substantive to nylon and can be applied on whites treated with many optical bleaches. Eliminates scumming and finishing difficulties.

APEXOMIDE =160

A white, nonionic softener for a high hand on cotton knit goods. Excellent resistance to high heat. Compatible with salts, weighters and fluorescent bleaches.

VELVAWAX =6

Similar properties to Velvapex 214-250 but with additional built in resistance to needle cutting.

SOFTENER =95

A white cationic paste softener imparting a smooth silky hand. Does not retain chlorine like most cationics.

ETHAPEX =47

A white liquid polyethylene softener especially recommended for cottons. Imparts a soft, cashmere hand. Compatibility of a nonionic yet exhausts on to the fibre. Excellent for use with all types of resins. In package dyeing does not filter out and gives uniform, even results throughout the package. Eliminates needle cutting on knit goods. Does not cream, separate or curd on standing.

APEX CHEMICAL CO., Inc.

Manufacturers of Chemicals Since 1900

200 South First St., Elizabethport 1, N. J.

Telephone: ELizabeth 4-5420

Enka Expands Nylon Output

American Enka Corp. has announced plans to expand its annual capacity for producing nylon 6 heavy denier yarns by an additional 3 million pounds. The increased output is expected to be available in 1961. This, together with 3½ million pounds scheduled for production in the fall of this year, will give Enka an annual capacity of 6½ million pounds. The new capacity will be utilized for the production of nylon yarns for tires, home furnishings, cordage, carpeting and auto upholstery.

Acquire Page-Madden Dies

Mitchell-Bissell Co., at the recent liquidation sale of Page-Madden Co., acquired the steel dies formerly used for the production of most of Page-Madden thread guides. As a result, many of the special patterns formerly sold under the Page-Madden name are now available from Mitchell-Bissell, and will be in addition to the more than 3,500 white glazed, blue satin finish and other ceramic guides developed by Mitchell-Bissell for handling any natural or synthetic yarns. *For further information write the editors.*

New U.S. Textile Division

U. S. Textile Machine Co. has established its Utex Products Division to handle sales and distribution of the company's line of yarn processing equipment as well as a complete line of complementary machines and supplies for the overall textile industry. The division will represent in this country the yarn converting equipment manufactured by Barmag Co. of Germany; Marquette spindles made by the Marquette Division of Curtiss-Wright Corp., and McHale flyers manufactured by M. J. McHale Co. A. R. Frampton heads the Utex unit as vice president and sales manager.

Indian Head Buys Hoosac

An agreement for the purchase of Hoosac Mills Corp., North Adams, Mass., by Indian Head Mills from Associated Textile Companies has been announced, subject to ratification by Associated's trustees. Hoosac produces filament rayon and acetate fabrics including linings, taffetas and twills which are distributed to the converting trades. Hoosac will continue to operate under its former management. When the transaction is completed, the merchandising and selling functions, performed by Butler Prentice and Co., will be assumed by Indian Head Mills.

Leesona Unifil Orders

Leesona Corp. recently received orders for Unifil loom winders from Machias Mill in Maine, Tallassee Mills in Alabama, and the Haynsworth plant of Woodside Mills, Anderson, S. C. The winders are to be used for the preparation of cotton and synthetic filling yarn. While the quantities ordered were not disclosed, Leesona said that the total Unifil loom winders sold now exceeds 40,000.

Fletcher Buys Valve Firm

Fletcher Works has purchased Turner Manufacturing Co. in Statesville, N. C., producer of farm implements and valves. The Statesville firm will operate as the Turner Division of Fletcher Industries, Inc. Present Turner equipment will be supplemented by new specialized equipment for the manufacture of narrow fabric looms and yarn twisting equipment for the textile trade.

Stevens Yarn Sales Unit

J. P. Stevens & Co., Inc., has formed a yarn sales department to handle all such sales for the company. John H. Christian will be in charge of the northern sales offices. David Fox and Bob Mathieu will serve in the Boston office; John Buscher, Jack Kemp and Dan Libby at New York, and Ave Morgan at Philadelphia. Louis Cramer continues in charge of southern sales operations with representatives in Greenville, S. C., and Charlotte and Greensboro, N. C. The entire yarn sales operation will continue under the general supervision of Wallace M. Sutton.

Robert E. Pomeranz
President, Roberts Company
Sanford, North Carolina
Mfrs. of Textile Machinery

"Sales of Roberts ARROW Spinning Frames for 1960 should be 50% over 1959, which jumped 60% over 1958. Growth needs increasing funds so that customers can be adequately served. In Textile Banking Company, we have found a policy that is simple and realistic. Its management has an unlimited desire to accommodate itself to our needs and those of our customers."

* * *

TBC credit and financial services are available in many fields of industry. They are most effective for manufacturers with annual sales of $500,000 and over. A TBC officer will give prompt attention to any inquiry.

TEXTILE BANKING COMPANY
55 Madison Ave., Dept.MT, New York 10, N.Y.

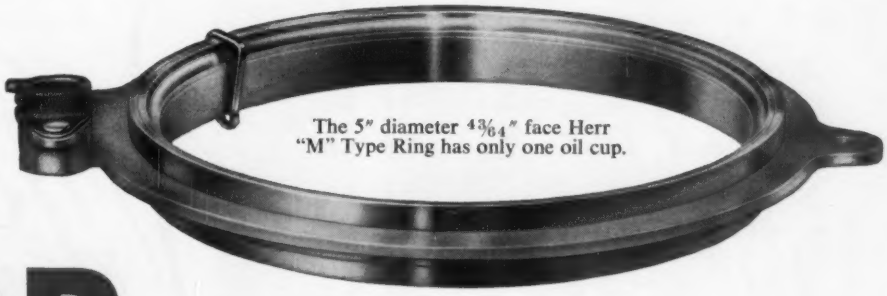
SUBSIDIARIES:
T. B. C. Associates, Inc., New York
Southwest Texbanc, Inc., St. Louis
Pacific Texbanc, Inc., Los Angeles

TBC

REDUCE
DOSAGE...
Says the Doctor
The New "M" Type Conical Ring
needs only drops of oil to produce
● More Uniform Lubrication Without Oil Waste.
● Longer Traveler Life.
● Longer Ring Life.
● Cleaner Yarn.
● Higher Spindle Speeds.
● Reduced Yarn Breakage.

The "M" Type Herr Conical Ring introduces a new, controlled method of lubrication. This outstanding improvement in ring lubrication is called Seam Lubrication — a method that utilizes the principle of capillary attraction. Thoroughly tested for several years in some of the largest textile plants, the "M" type Herr Ring provides more uniform lubrication than has been possible before. There is no oil waste. Every drop of oil is utilized being drawn by capillary attraction through the top and conical seams. There are no wicks that leak oil — no rewicking. The operation is clean. Maintenance costs are lowered. Oil consumption is greatly reduced, yet faster spindle speeds are possible without extra wear to ring or traveler. Write today to get all the facts that make new profits.

Oil is Supplied to Both Top and Conical Bearing Surfaces Through Seams.
Oil Flows to Annular Reservoir Within the Ring, Then is Drawn by Capillary Action Through Seams.



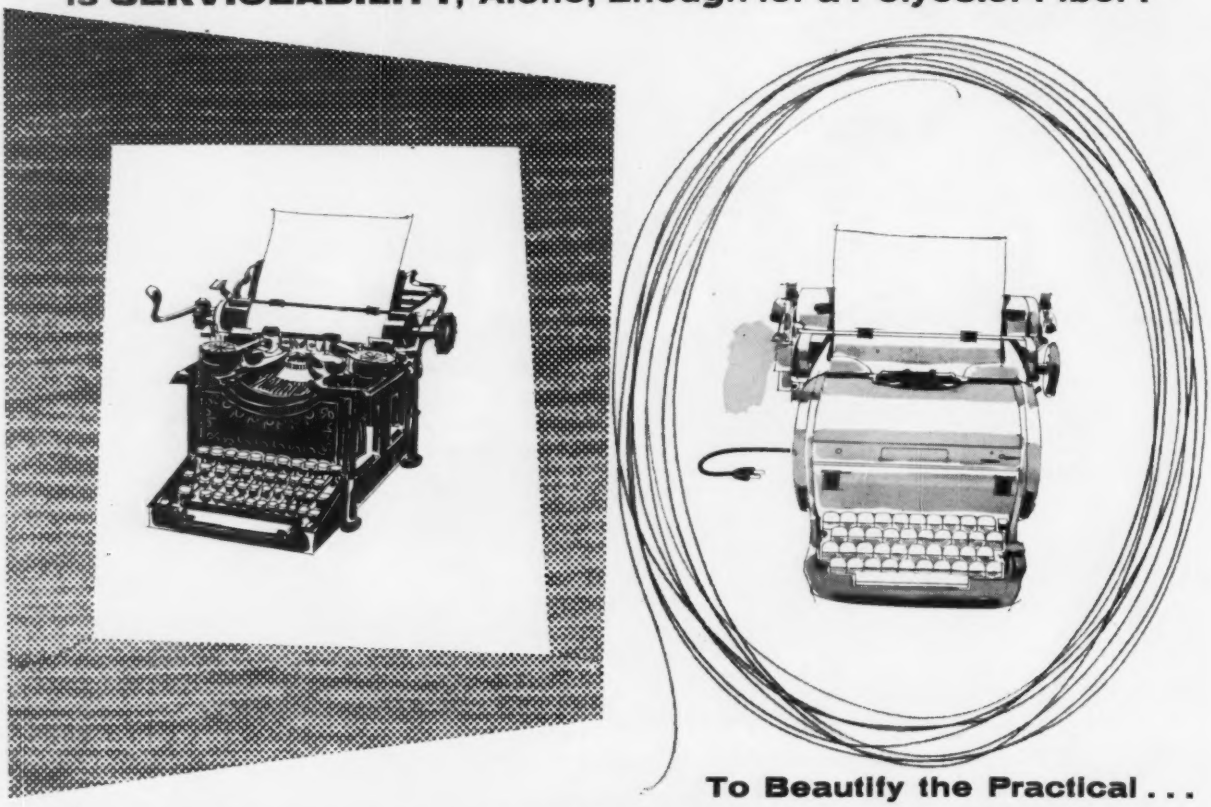
HERR MANUFACTURING CO., INC.

308 FRANKLIN STREET • BUFFALO 2, N. Y.

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON, ORLON, FIBERGLASS AND BLENDED YARNS OF ALL TYPES

"Visit us at our booth—69 and 70—American Textile Machinery Exhibition, Atlantic City, May 23-27."

Is **SERVICEABILITY**, Alone, Enough for a Polyester Fiber?



To Beautify the Practical . . .

Vycron Introduces the **FIRST MAJOR BREAK-THRU** in Polyester Consumer Appeal!

Even the most utilitarian items, like typewriters, must have eye-appeal to attract today's consumers. ● In styled items like fabrics, beauty is even more important. Yet... according to our recent survey... 83% of consumers find wash-and-wear fabrics unsatisfactory from the aesthetic viewpoint. ● Now Vycron changes all that with heightened color beauty, finer hand and texture, unparalleled resistance to pilling, and greater pliancy and drapeability. Not only in wash-and-wear fabrics, but also in crease-resistant Vycron-wool blends, and decorative fabrics for the home! Nothing less will do for 1960!

● Fabrics labelled "Vycron" are Certified for quality and wash-and-wear performance by United States Testing Company.

Vycron National Advertising in 1960 will be carried to America's Millions in

Esquire	Glamour
Holiday	Harper's Bazaar
New York Times Magazine	Mademoiselle
Playboy	New Yorker
Sports Illustrated	Vogue
Life	

Vycron*

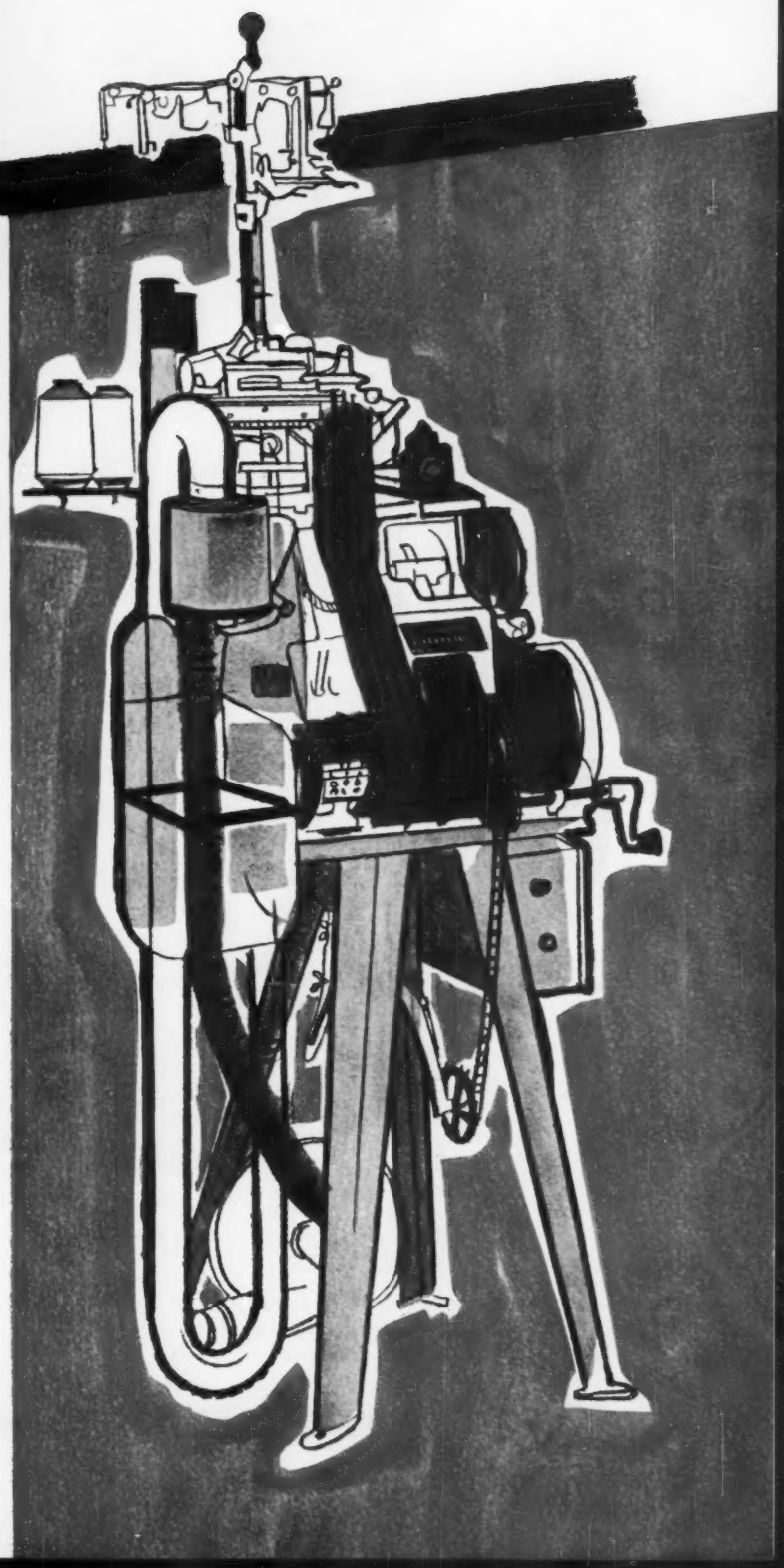
POLYESTER FIBER

AMERICA'S MOST ADVANCED SELF-CARE FIBER

BEAUNIT MILLS, INC., Fibers Division, 261 Fifth Ave., New York 16, New York • Plant: Elizabethton, Tenn.

*Reg. applied for. Beaunit Fibers Division makes the fiber, not the fabric or garment.

now peak production of the finest seamless nylon stockings



announcing the new "Reading-Booton" twin-feed machine

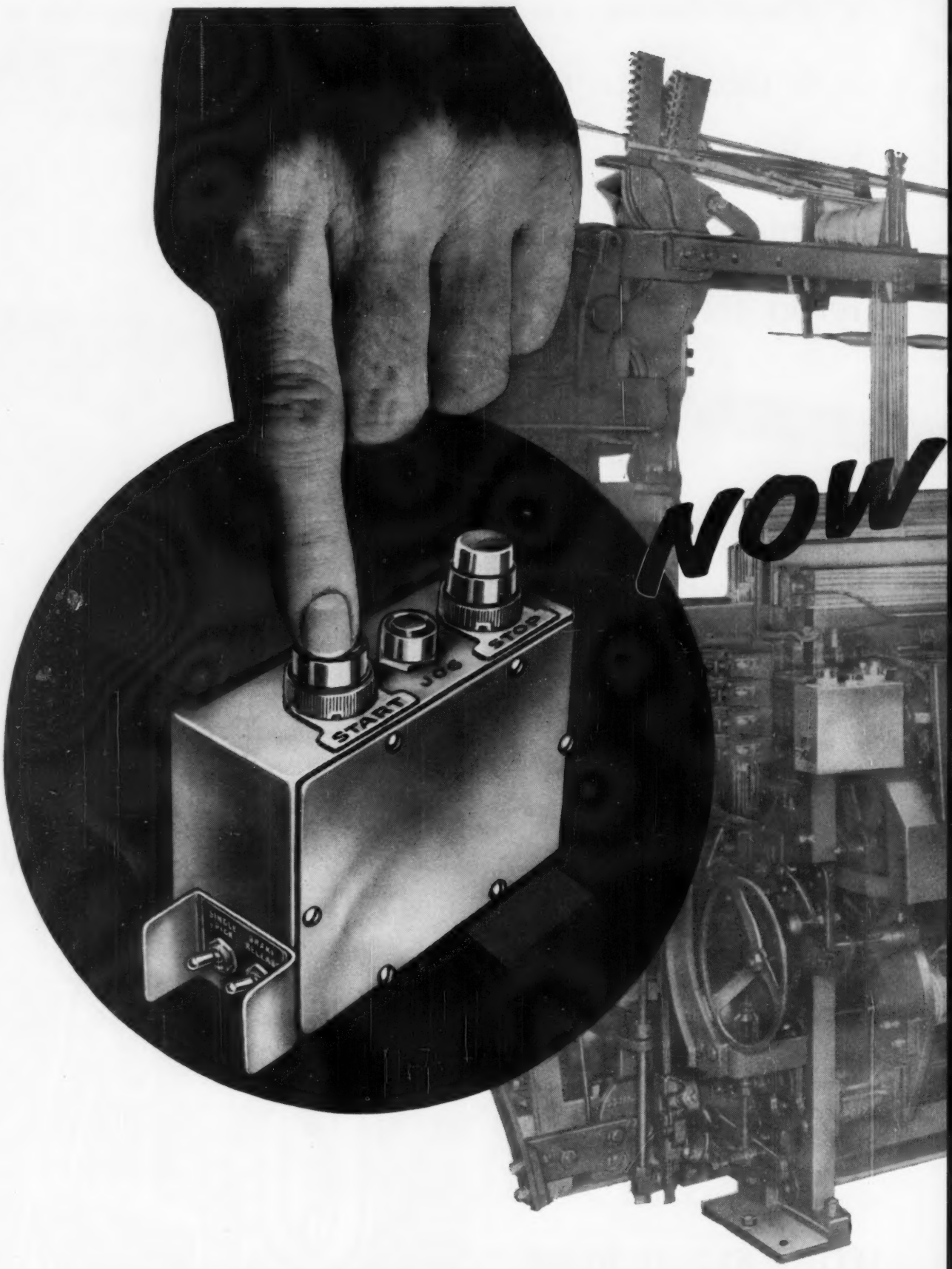
- **2-feed automatic, highly efficient end trimmer. Trims all ends to a length of from ¼ to ⅜ inch.**
- **New high standard of fabric quality**
- **Continuous, high-speed production**

The new "Reading-Booton" Twin-Feed Machine opens new profit possibilities in the knitting of ladies' seamless stockings. It gives you twin-feed production, plus amazing simplicity of operation, and trouble-free performance.

New features developed by Textile Machine Works for the proven Booton Machine. This new precision machine belongs in your production planning. Backed by our world-wide service organization. You'll want to see the new "Reading-Booton" in operation before you buy any seamless machine. Call us today.

TEXTILE MACHINE WORKS

READING, PENNA.



TRY THE SENSATIONAL NEW ELECTRIC CONTROL

RUN A LOOM YOURSELF

You're invited to operate any of the new C-7 Looms with the all-electric push-button controls at the American Textile Machinery Exhibition. See how easy it is to start, stop, jog reverse, or control a single pick operation. Three of these new looms will be ready for you to run, weaving fancy terry towels, a fine filament fabric, or synthetic dress goods.

Also see in operation the new C & K PAPA Loom (Pick And Pick Automatic) weaving upholstery fabric. Observe the high speed Needle Loom weaving two 1¼" wide elastic webs at the same time. Examine at eye level a 1304-hook double lift double cylinder Jacquard with the latest features in operation.

Let us demonstrate how C & K Looms of tomorrow can help you increase the efficiency of your mill today.

MANUFACTURERS OF THE WORLD'S LONGEST LINE OF AUTOMATIC BOX LOOMS

CROMPTON & KNOWLES CORPORATION
C&K
WORCESTER, MASS. U.S.A.

Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles Jacquard Supply Co., Pawtucket, R. I.
Crompton & Knowles of Canada Limited, Montreal, Que.

YOURSELF ON THE C-7 LOOMS AT THE SHOW!

BOOTH NOS. 360-377

Some things just lie there...

Some items just lie on the shelf, eating up overhead. Murdering you...You make your money on merchandise that moves. Du Pont fibers help goods do exactly that: move!... Du Pont fiber trademarks are known, trusted, proven. They're miles ahead in consumer preference. (Fact: 6 to 1, consumers in a recent survey said they'd prefer to have Du Pont make the fiber in women's slips.) ... And Du Pont keeps building this preference through a broad advertising program, including "THE DU PONT SHOW WITH JUNE ALLYSON"...Yes, it makes sense to feature the fibers that help you move goods: DuPont fibers!

DU PONT
NYLON "ORLON"* "DACRON"**
ACRYLIC FIBER POLYESTER FIBER
...GIVE YOU A SELLING EDGE!

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING THROUGH CHEMISTRY

*Du Pont's registered trademark for its acrylic fiber. **Du Pont's registered trademark for its polyester fiber.

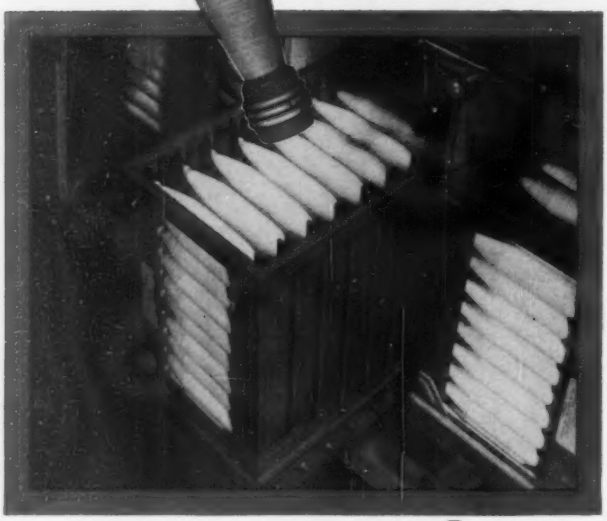
Enjoy THE DU PONT SHOW WITH JUNE ALLYSON, Monday nights on CBS-TV.

A NEW APPROACH TO MILL AUTOMATION

THE Schlafhorst SERVOLOOM AUTOCOPSER

designed to feed the Draper Automatic Filling Magazine.

- Complete winding control assures high quality package.
- The Schlafhorst precision built bobbin.
- Carefully loaded into filling magazine.



5 MAJOR ADVANTAGES *that you should investigate at the International Textile Exposition, Atlantic City, N. J., U. S. A. May 23 - 27, 1960*

1. Highest WEAVE ROOM EFFICIENCY through precision-built tip bunch.
2. Best ratings in CLOTH QUALITY through fewer and perfect transfers.
3. Lowest over-all COST PER POUND in winding plus weaving.
4. Fast RETURN on the INVESTMENT.
5. Full FLEXIBILITY per loom and spindle.

Sold and serviced by

THE TERRELL MACHINE COMPANY, INCORPORATED

CHARLOTTE, N. C., U. S. A.

ATMA Parade of Progress

DRAPER AUTOMATIC FILLING MAGAZINE

INCREASE ***loom performance***

IMPROVE ***cloth quality***

REDUCE ***mill costs***

The Draper Automatic Filling Magazine, *brings new automation to your weave room . . .* reduces filling handling to a minimum.

Lower labor costs, more continuous loom operation, cleaner yarns and fewer cloth seconds are direct advantages gained from the use of this magazine.

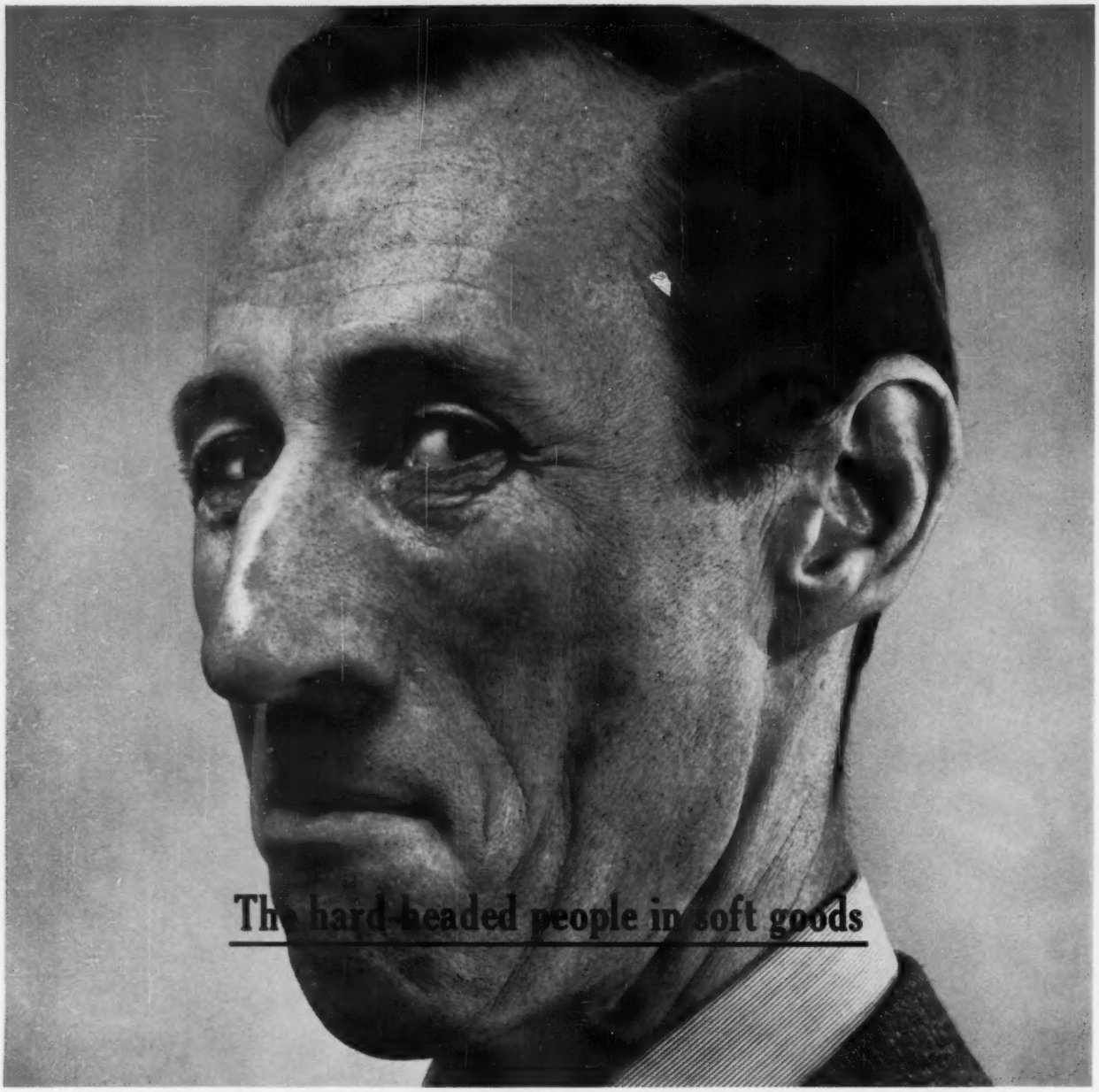
Your Draper representative will be glad to show you the many benefits that can be obtained from the Draper Automatic Filling Magazine.

DRAPER CORPORATION

HOPEDALE, MASS.

ATLANTA, GA. GREENSBORO, N.C. SPARTANBURG, S.C.

ATMA Parade of Progress



are featuring fabrics made with Courtaulds' new forms of rayon

It's true! Courtaulds' extraordinary rayon fibers are enriching knits and wovens all over the market. Good in themselves, they're also great mixers. They give a beautiful lift to polyesters and acrylics, for instance, and reduce fuzzing and clinging in wash-wear blends with all synthetics.

And what wonderful individual qualities! Cross-linked Corval and Topel produce superb quality of hand, have a flair for luxury weaves and a thirst for color that puts new glow and go into merchandise. Solution-dyed Coloray creates unmatched colorfastness and delicious, downy texture. All three fibers take to all finishes—make all kinds of fabrics—and make them *better*. Make sure you feature the better fabrics made with Coloray, Corval and Topel!

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We back you all the way—with powerful trade and consumer promotions. If you, too, want a custom-tailored job on your wash-and-hang drapery fabrics, contact Enka's Merchandising Department in New York at PE 6-2300.

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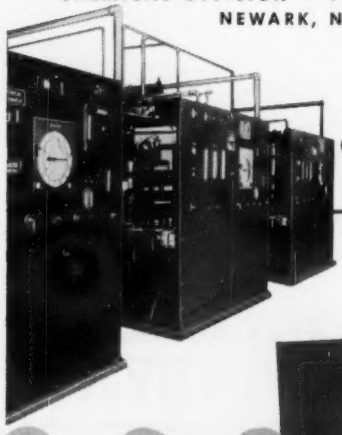

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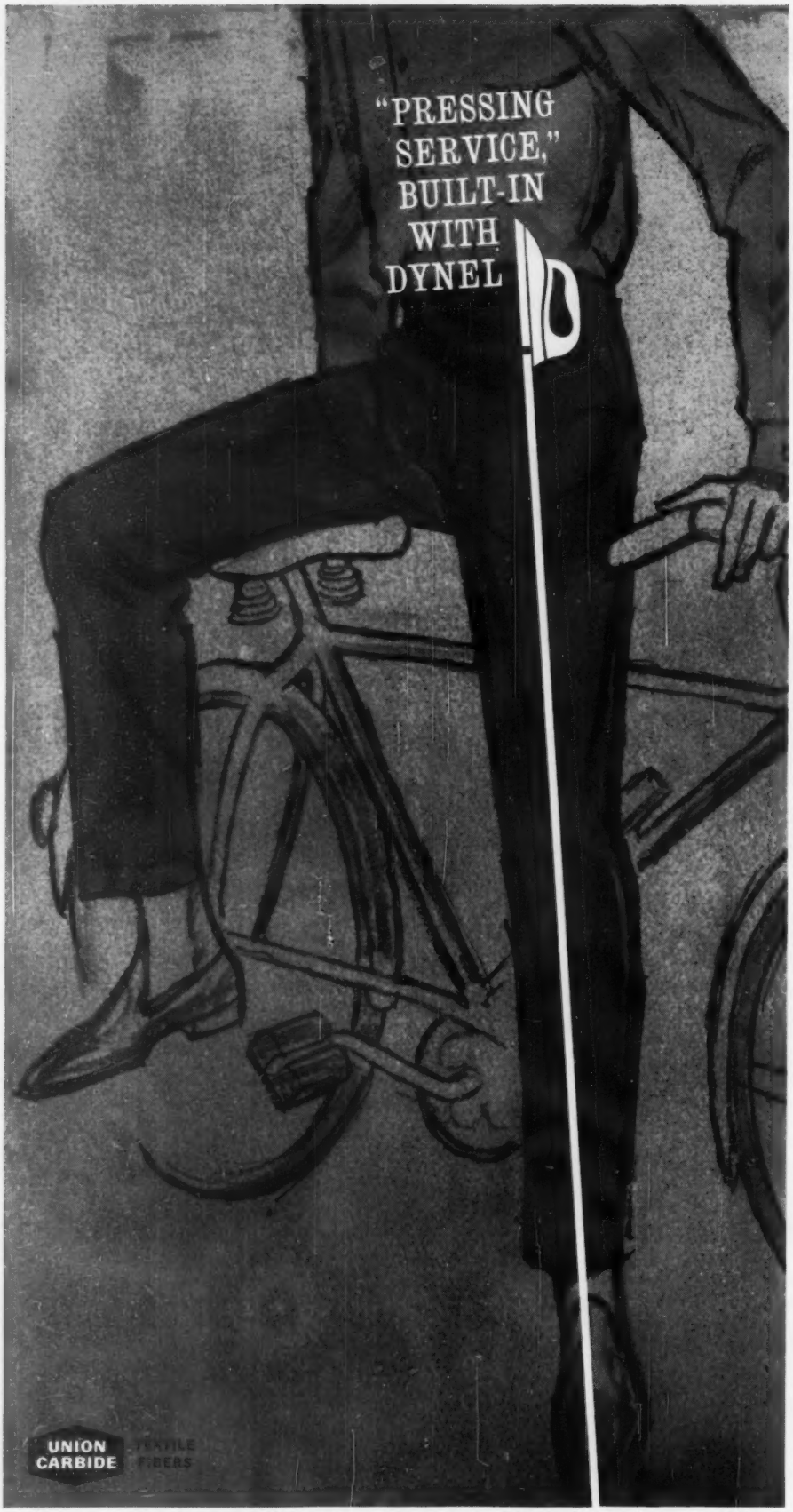

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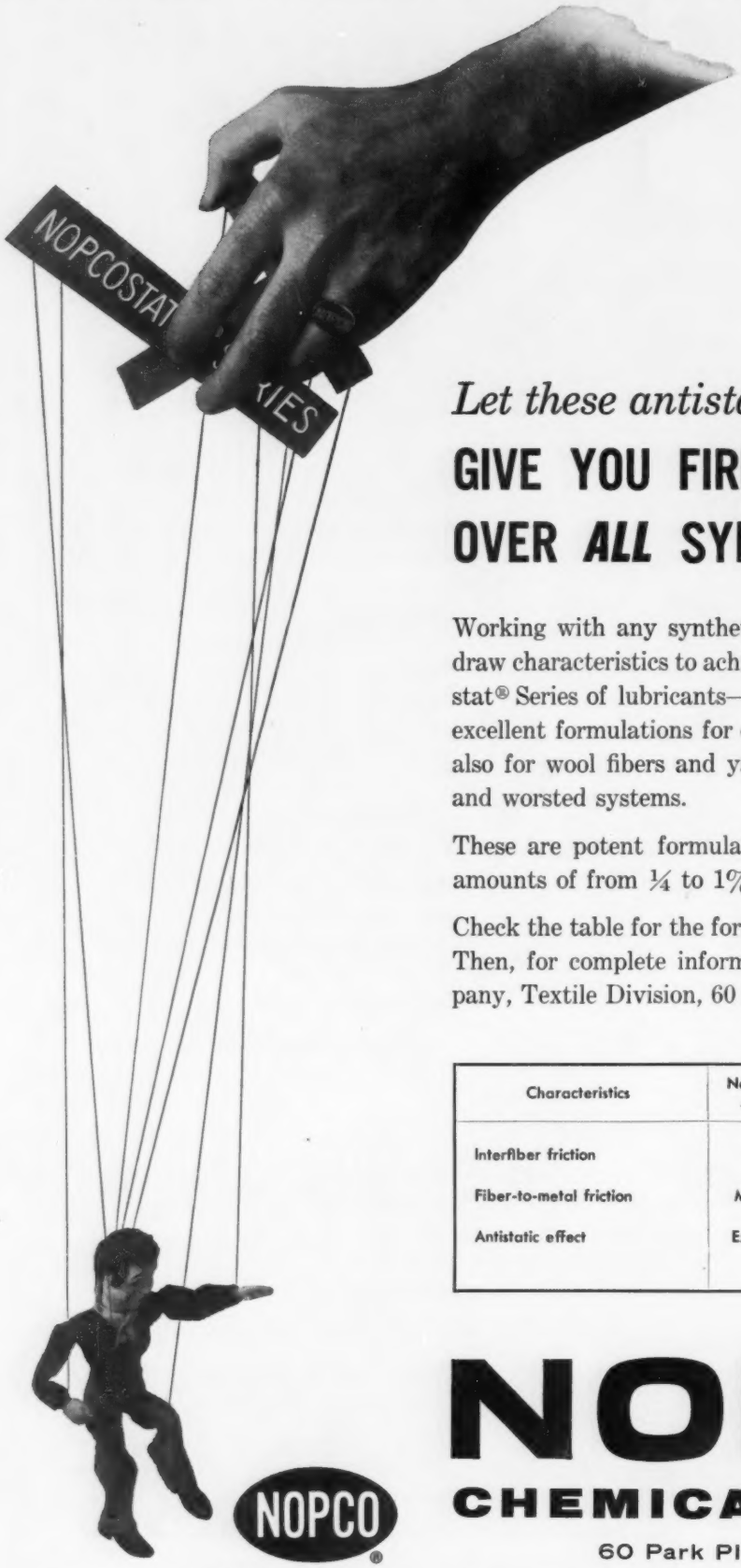

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Interfiber friction	Low	Medium	High	High
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Antistatic effect	Excellent	Excellent	Excellent	Excellent

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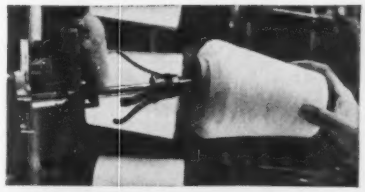
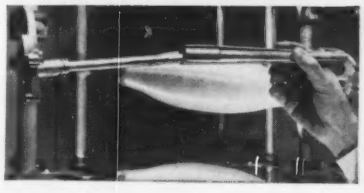
Why not send for our booklet describing all the advantages of Kidde creels. Just write or phone.





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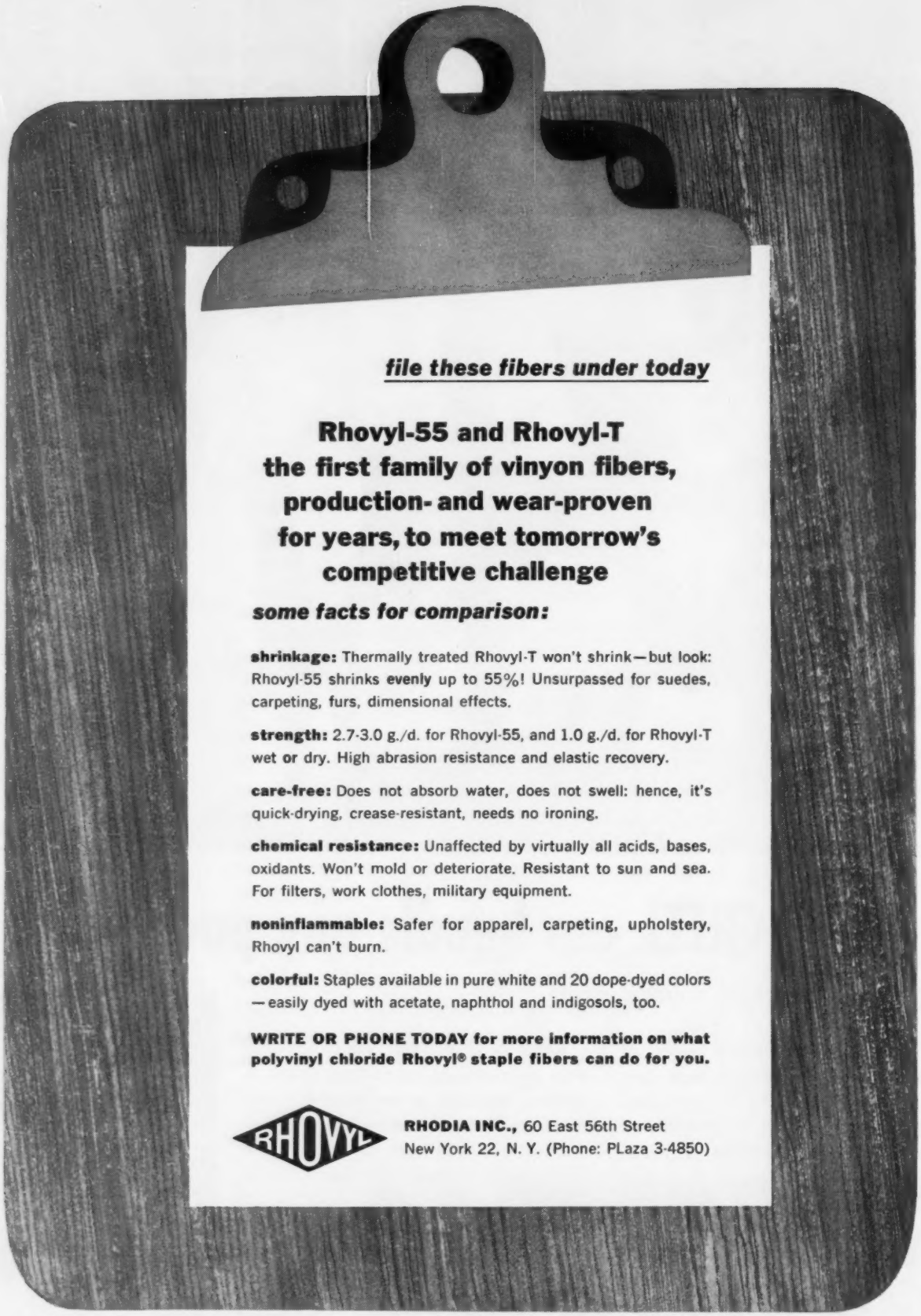

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Rhovyl-55 and Rhovyl-T the first family of vinyon fibers, production- and wear-proven for years, to meet tomorrow's competitive challenge

some facts for comparison:

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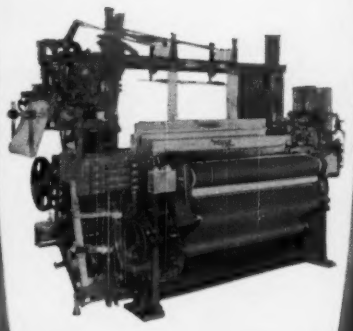


Ever since flat steel heddles were first introduced to American Textile Mills by Steel Heddle Manufacturing Company, the highest standards of Quality Control have been maintained, and the latest developments and improvements have been introduced first by Stehedco.

Stehedco Engineers are constantly working on improvements in design and construction so that you, the producers of fine fabrics, can have more efficient and better quality production, and greater profits.

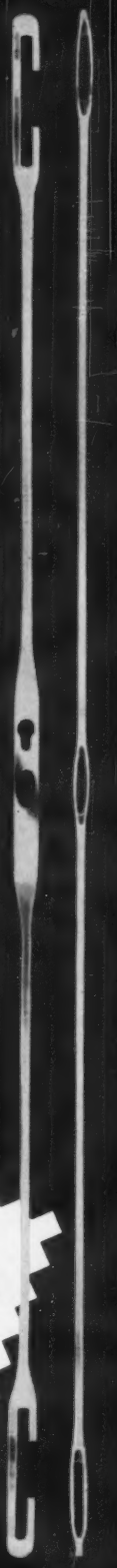
Made from the finest quality material, by experienced craftsmen who take justifiable pride in their work, Stehedco flat steel heddles are finished to perfection for smooth performance.

The fact that most mills are equipped with Stehedco heddles proves their well earned popularity. Their reputation for giving longer, trouble-free service, and producing better quality fabrics, is the reason for their great popularity. It is a well known fact that Stehedco heddles are really less expensive in the long run.

Every popular type heddle is available to suit any application, to handle the most delicate yarns, or the heaviest. Ask to have one of our qualified Sales Engineers show how YOU can benefit by equipping your looms with Stehedco heddles.

Be sure you have the best heddles for your particular application; be sure you have STEHEDCO heddles.

(Illustration of C-7 Loom courtesy of Crompton & Knowles Corporation.)



ATMA EXHIBITION
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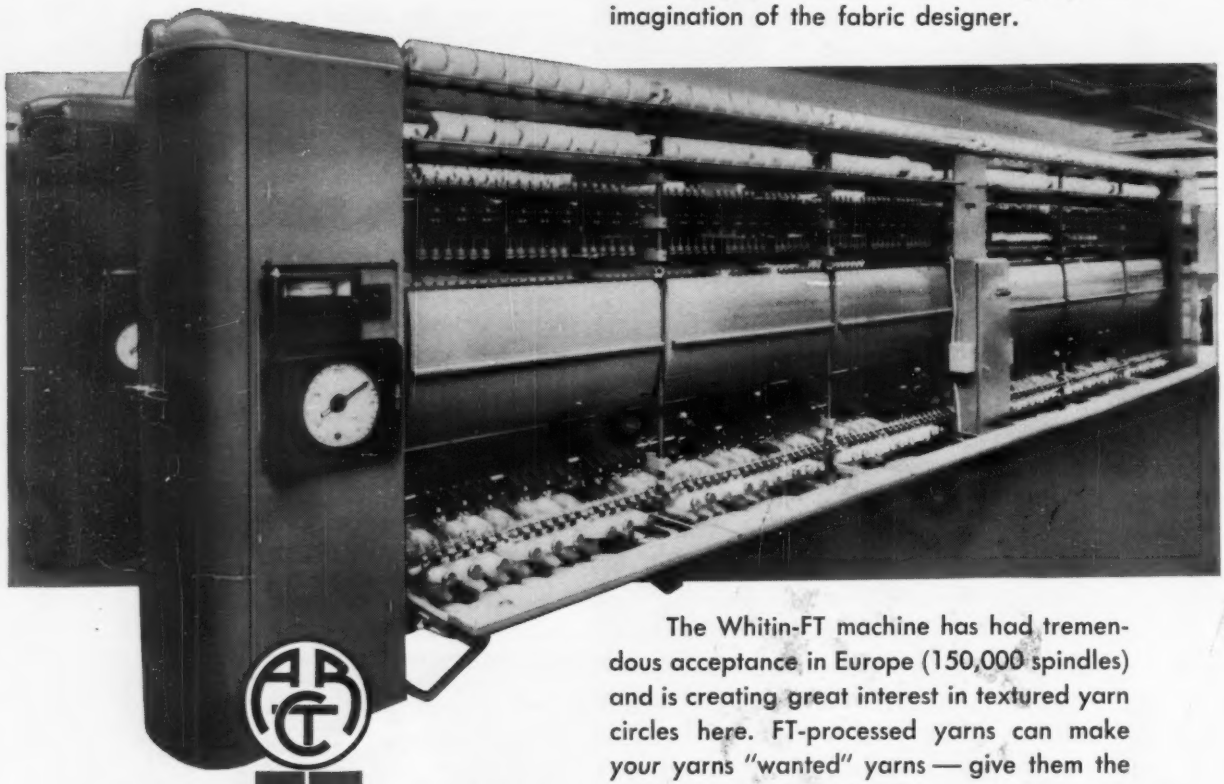
The quality, uniformity and versatility of yarns processed by the Whitin — A.R.C.T. False Twist machine are unexcelled. These are the properties which your yarn *must* have to enable your customers to capitalize on the infinite variety of new fabrics made possible by the development of textured yarns.

The FT machine with its precision in-process-control of tension, temperature and twist produces the ultimate in textured yarn quality with greater elasticity, crimp retention and a level dye affinity. FT-processed yarns can be tailored to any requirement and are adaptable to any market. The number and variety of knitted and woven fabrics which can be successfully produced is limited only by the imagination of the fabric designer.



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The Whitin-FT machine has had tremendous acceptance in Europe (150,000 spindles) and is creating great interest in textured yarn circles here. FT-processed yarns can make *your* yarns "wanted" yarns — give them the golden touch of Quality.

See this machine in operation in the Whitin A.R.C.T. Booth 1153 at the A.T.M.A. — International Exhibition, Atlantic City — May 23-27, 1960.

WHITIN MACHINE WORKS • WHITINSVILLE, MASSACHUSETTS

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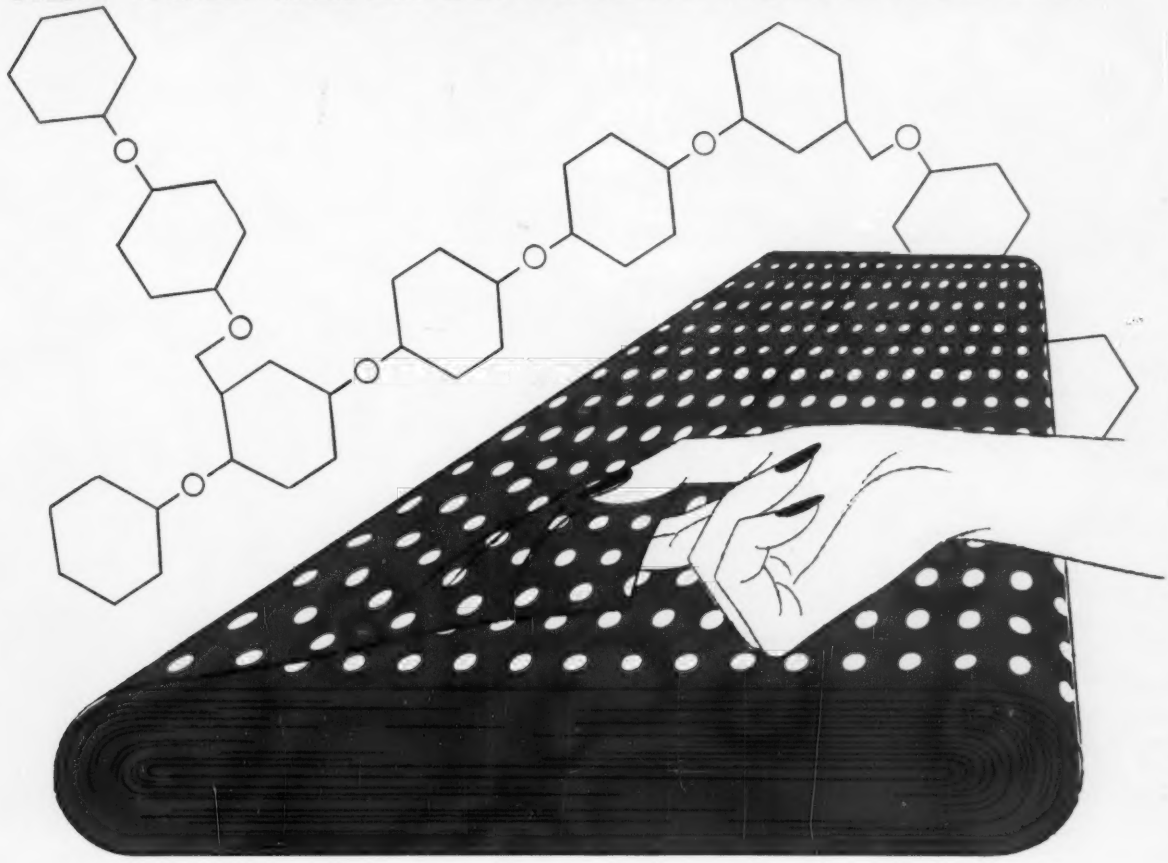

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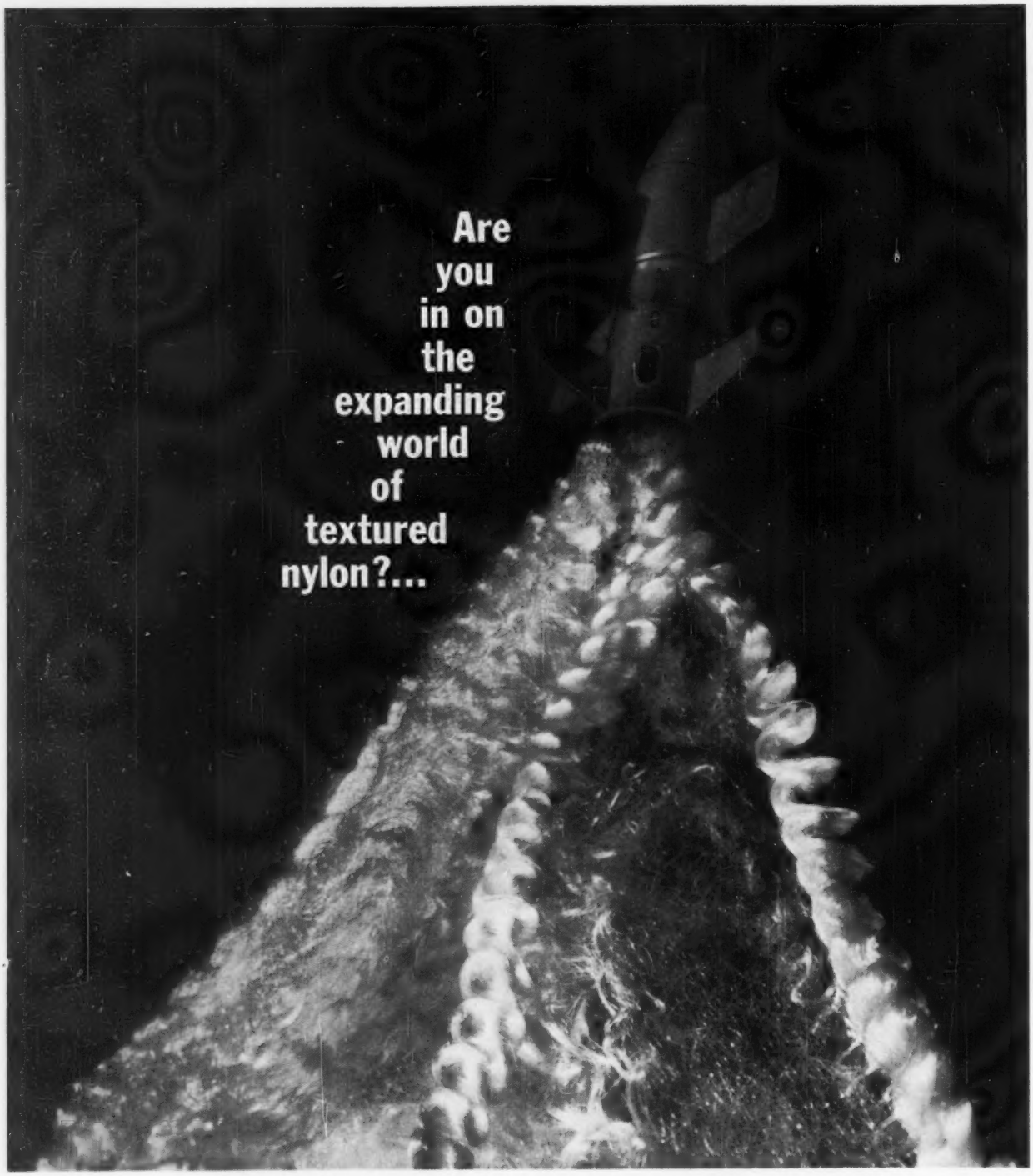

Inter-textures . . . Multi-textures . . . Space Treatments . . . Mirror-effects are just a few of the new words finding more frequent use in forward-thinking textile mills. They describe new achievements made possible because of mill men, designers and stylists with vision who have seen the potential in one specific yarn—Textured Caprolan nylon—and made the most of it. How this tough continuous filament nylon can help *you* enjoy new opportunities is a story we'd be happy to review with you at the American Textile Machinery Show at Atlantic City.

Speaking of new horizons: see them shape up before your eyes right at the show as Textured Caprolan is put through Cobble Bros.' new electronic tufting machine. Needles are individually controlled to create a greater variety of carpet patterns than ever before. It's one more proof that the revolutionary nylon yarn made for revolutionary textile machinery is . . .

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MODERN TEXTILES
Magazine

Publisher's Viewpoint

Meet Us in Atlantic City

May in the textile industry is the month of the great pilgrimage to Atlantic City. There, during the entire week of the 23rd, will be staged the greatest exhibition of textile machinery ever held in the United States. Not only will the pilgrims come from every part of the United States to see the latest and most efficient in the world's textile equipment, but they will journey from Europe and Asia to say nothing of Latin America. And they will come in great numbers and all of them will be important people in the textile companies they represent.

Under one roof in Atlantic City's gigantic auditorium, specially enlarged and modernized for the occasion, the visitors will see a vast display of textile machinery and auxiliary equipment. Most of it will be running under mill conditions, actually doing the work for which it is designed.

In all there will be 300,000 square feet of exhibition space occupied with displays of exhibitors. It is expected that the number of exhibitors will come to 450, and that a total of 88 foreign machinery manufacturers will have exhibits including companies from Great Britain, Holland, Sweden, West Germany, France, Switzerland, Belgium, Italy, Canada, Japan and Denmark.

To our way of thinking, the American Textile Machinery Association deserves great credit for its courageous breadth of vision in making the big Atlantic City Exhibition an international show, and warmly inviting machinery manufacturers in foreign countries to display their wares. Because so many textile machinery firms in the leading industrial countries of Europe and Asia have responded and are exhibiting their machines, mill management people visiting the show will have an opportunity to see for themselves how American-made machines compare in performance with equipment made abroad.

Will the Atlantic City show be bigger than the textile machinery exposition in Milan last year? This is a question that has been asked by many persons in the industry, especially those who managed to get to Italy and were impressed by the show at Milan. Comparisons, of course, are always invidious, and we have no intention of making one here. But we think it important to offset the impression that Milan was the greatest of all textile machinery shows by quoting the views of a man who has made a special study of the Italian exhibit in relation to the Atlantic City show later this month.

John H. Bolton, Jr., vice president of Whitin Machine Works, and chairman of the ATMA Exhibition Committee, in a report to his committee some months ago pointed out that 9,700 square meters of floor space at Milan were given over to sewing and knitting processes, including a great deal of hosiery equipment. Machinery of this kind is usually exhibited in the United States in specialized trade shows. Also, he said, that, if one takes into consideration machines shown at Milan such as mule spinning frames that are no longer used in the United States, and therefore will not be shown at Atlantic City, the Milan exhibition shrinks in size by comparison with the American Textile Machinery Exhibition—International. Bolton also said that, at Atlantic City, most of the machinery on display will be in operation, while, at Milan, much of the equipment shown was not running.

We draw attention to Bolton's views not to belittle the Milan show which was, as we all know, a brilliant and impressive affair. Our aim rather is to emphasize that the Atlantic City Exhibition this month will at least measure up to Milan if it does not actually surpass it.

Our moral is a simple one: if you have not already arranged to be in Atlantic City during the week of May 23-27, lose no time in making hotel reservations for at least a few days in the New Jersey resort city to see what will undoubtedly be the biggest and best textile machinery exhibition ever staged in the western hemisphere. And while you are there, be sure to drop in at the booth of MODERN TEXTILES MAGAZINE. Our entire staff will be present and eager to exchange greetings with you.

A. H. McCullough

TEXTILE NEWS

World Wide

JAPAN SEES EXPORTS of rayon rising sharply during the 12 month period that started in April. Major export rises outlined by the Japan Silk and Synthetic Textiles Exporters Association were for spun rayon fabrics (820 million square yards, against 710 million the previous period); rayon filament fabrics (345 million square yards, against 310 million), and spun rayon yarns (48.5 million pounds, against 38.4 million). Rayon staple and filament yarn increases were also set.

JAPAN'S BIGGEST NYLON MAKER, Toyo Rayon, is pushing plans to expand production by 30% in the near future. Toyo's present nylon 6 capacity of 116,600 pounds daily is to be boosted to 160,000. The company's new 869,000-square foot nylon mill at Okazaki will turn out 28,000 pounds a day when it swings into operation next month. Toyo is also operating a nylon 66 pilot plant with a 4,400-pound daily capacity.

SHARP RISE IN MANMADE FIBER output took place last year in Japan. Nylon yarns were up 51% from 1958; polyester yarns and staple fiber rose most in quantity with an increase of 352% over 1958. Output of polyester in 1958, of course, was small. Acetate production was up 70% over the preceding year while saran climbed 16%. The figures were compiled by the Ministry of International Trade.

INDIA WILL HAVE NYLON plant in a bit over two years as a result of an agreement made by Bombay businessmen and two Dutch and one German company. The plant, India's first, is to be built 150 miles from Bombay. It will have an initial capacity of 4.03 million pounds of nylon yarn and 5,000 tons of caprolactum annually. The Dutch firms are AKU and Staatsminen, the German, VGF.

FABELTA OF BELGIUM expects to begin producing acrylic fiber—acrybel—early in 1961. Plans are also underway to turn out a polynosic fiber "Z-54."

FAST-DRYING NYLON SHIRT is being sold in the United Kingdom by Rael-Brook. Ltd. The firm says the shirt, made of Maginyl, is three-bar warp knitted, porous, nearly wrinkleproof and capable of drying at room temperature in 25 minutes.

FIRST PHASE OF BRITAIN'S $84 million cotton textile industry modernization program has ended. "I have every reason to believe all machinery submitted for scrapping will have been broken up," Lord Rochdale, Cotton Board chairman said. The second re-equipment stage is to take five years. It will see modern spinning, doubling and weaving machinery installed. A third finishing stage will come later.

U K WOOL WORKERS GET 4% wage rise, as against the 5% increase they asked for. Effective April 2, the rise, affecting 200,000 workers, amounts to the equivalent of 55¢ to $1.20 a week.

TEXTILE'S WORLD TRADE PROBLEM was clearly delineated in Geneva and Manchester, England. In the Swiss city, the General Agreement on Tariffs and Trade completed a special committee meeting on the effect U. S. and other industrialized nations' textile import bans have upon newly developing countries. The talks will be broadened next month. And in Manchester, C. E. Harrison, former Chamber of Commerce president, said his country's textile hopes are pinned to the government's ability to secure long-range pacts with the world's low-cost cotton goods makers. Lancaster has lost 20% of its home market already, Harrison said. Meanwhile, Gatt announced that Australia would cut textile import quotas 50% this year. Affected are sheetings, shirtings, upholstery fabrics, prints and towelings.

RUSSIAN-JAPANESE PACT will see Toyo Koatsu Co. build a $30 million Kanekalon (acrylic fiber) plant somewhere in the USSR. Raw materials through finished goods will be made. Russia is expected to send 50 to 60 engineers to Japan for training. These experts will then return to Russia to supervise construction.

PHILIPPINE RAMIE PLANT has started production under the management of the National Development Co. The government hopes to revive the country's languishing ramie industry. Later a textile mill to make fabrics of ramie will be built. The new unit, just started, is a degumming plant.

GERMANY'S SEAMLESS HOSIERY demand is rising steadily—largely at the expense of full-fashioned hose, according to the Association of German Knitters. Some 40% of Germany's hose output is now seamless; deliveries rose 115% in 1959, but full-fashioned shipments were off 2%. Further increases were predicted for the seamless in 1960.

FEET ON THE GROUND—Spencer Love uses his hours of travel to get work done. Here in conference with him while airborne are (left) Walter E. Greer, Jr., Burlington's senior vice president, and Stephen L. Upson, (right) secretary & general counsel

BURLINGTON'S HEAD MAN

37 years ago Burlington was another small cotton mill. Today it is the world's largest textile manufacturer. Here is the story of the man who directed its growth

By Jerome Campbell
EDITOR, MODERN TEXTILES MAGAZINE

ONE MORNING in January, 1924, those citizens of Burlington, North Carolina, who took in the local paper could have read an item noting that "slight tremors were reported to have been felt by several persons early this morning, the force of the tremors being strong enough to rattle chinaware and in one instance at least, to have shaken pans and buckets from shelves.

"The Burlington Mills Incorporated which is to begin operations of a cotton factory here some time in the early summer, is offering for sale additional shares of stock for the purpose of increasing the proposed capacity of the mill by 100 looms. Stock amounting to $200,000 was sold a few months ago."

What, if any, connection there was between the earthquake and the fact that a new industry was soon to start up in Burlington, the newspaper did not make clear. Perhaps there was none. But those who have followed over the years the astonishing growth of Burlington and its shattering impact on the textile world since its beginning as a "cotton factory" would hardly be surprised if its appearance had been accompanied by signs and portents even more disturbing than a quaking of North Carolina's bedrock.

Over the decades since then Burlington's nonstop, breakneck pace of proliferation has been accompanied by a whole series of temblors, major and minor, in physical apparatus of American textiles to say nothing of the emotions of men in high places in the industry's management. By and large, these upheavals have been ones opening paths to growth and achievement not only for Burlington but for the textile industry

as a whole, and they have accomplished with undeniable success their primary purpose of providing better fabrics for America's increasing millions of men, women and children.

Few in textiles will deny that the great and continuing Burlington earthquake has been a constructive one. Without going back to those by now far-off days of Burlington's first decade, one need only look at the figures of more recent years, Between 1937 and 1959, Burlington's net sales moved from $27 million to $805 million; stockholders' equity from $6.5 million to $297 million. Workers have increased from a few hundred to 64,000 employed in 127 plants. And the plants themselves are virtually all crack units, uncompromisingly modern and spankingly well kept. From them in enormous yardages come virtually every kind of fabric in commercial use. And Burlington's output, woven and knitted of cotton, wool and all the manmade fibers available in usable quantities, is generally conceded in the trade to be of excellent quality.

The guiding spirit and in every sense the creator of this huge complex of manufacturing enterprises is James Spencer Love who at 64 remains still slender, vigorously active and little changed in appearance from the young man who in 1919 elected to make textile manufacturing the field for his tireless energies, his astonishing business acumen and his iron ambition to expand and expand and expand until his company stands where it is today—the biggest of textile manufacturing outfits.

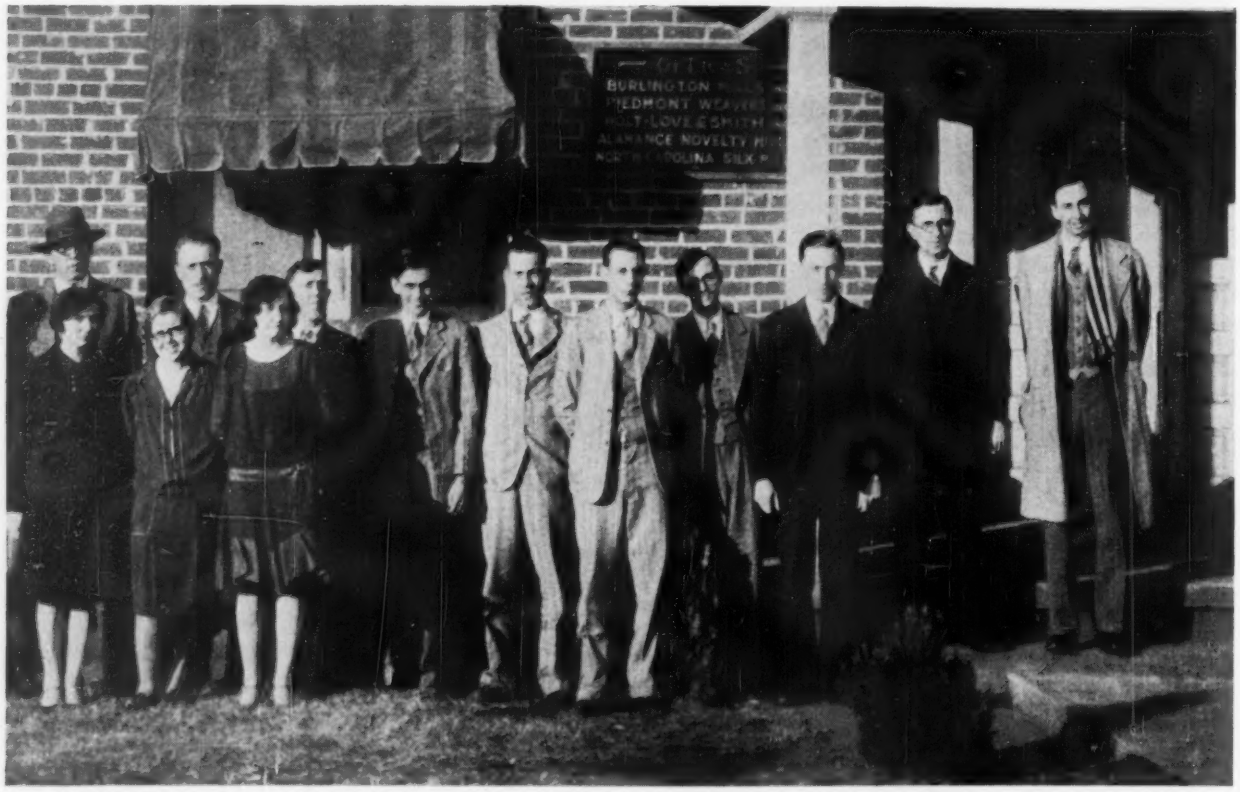
After 40 years of continuously electrifying the industry by his determination to move Burlington forward to increasing diversity and bigness, Love has not lost his faculty for startling moves. The latest of these, consummated in March, was the merger with James Lees and Sons Co., a big and profitable maker of carpets with a sales volume of $83.8 million in 1959.

To have lifted Burlington in 37 years of herculean prodigies of work, accompanied by a marvellous ability to divine correctly what move to make next, spiked by the sheer courage to make the move, is the essence of Love's achievement. Abilities of this kind when they hit upon the right moment in time and the right field for their exercise tend to promote discomfort in ordinary men, those who are, to a greater or lesser degree, willing to let things take their course, put in a fair day's work and knock off for the ordinary pleasures of life.

So Spencer Love inevitably in his hard-driving, unrelaxing career has caused his share of uneasiness among his fellow managers in textiles. But it is a measure of the man's essential humanity and unaffected personal charm that he has made few lasting enemies and has wrung from many in the industry who have worked with him and been drawn into the accelerating, nonstop sweep of his accomplishments, the tribute of fascinated admiration. In a word, Spencer Love is always news in textiles; what he does, what he says, and what he may do next are topics of endless, almost spellbound conjecture among textile people everywhere in the United States.

Spencer Love was born on July 6, 1896 in Cambridge, Mass., where his father, James Lee Love, was a professor of Mathematics at Harvard University. Although thus by birth a New Englander, there is a certain rightness in the fact, when we remember that the textile industry is located largely in the South (including most of Burlington's mills), that Love is a North Carolinian by family connection and descent. His father came from Gastonia where the Loves and

(Continued on Page 65)



TIMES HAVE CHANGED—Taken in the early days in Burlington N. C., this photo shows Love (extreme right) with some of his staff.

New worsted system machines brought out by Southern firm

Roberts offers preparatory equipment made in Italy

Staff Prepared

THREE NEW MACHINES for processing worsted and other long fibers are being manufactured by Roberts Co., Sanford, N.C., and will be shown for the first time at the Atlantic City textile machinery show this month, according to Robert E. Pomeranz, president. To be manufactured under the name, Roberts-Tematex, the new machines are the ParaDrafter, the Auto-Evener and the ParaBlender.

They are used in yarn spinning mills as well as in combing and top making plants for parallelizing, drafting and blending worsted and other long fibers in operations that precede roving and spinning of yarn. A major advantage of the machines, according to Pomeranz, is the control of the delivered output sliver weight to within plus or minus one percent.

Roberts-Tematex equipment is manufactured in Italy in a plant affiliated with Roberts through joint license and research facilities. They are supplied with electrical motors and accessories made in the U.S. and Roberts is presently gearing to make certain component portions of the machines in its own plants in Sanford.

These machines have already been in production by Tematex in Milan more than three years. More than 300 are said to be in operation in plants throughout the world. Those made under the Roberts-Tematex name are latest models, specifically adapted for American production requirements.

Several of these machines already have been sold in the United States and will soon be in operation in mills. A service organization, similar in function to that servicing its Arrow line, is being built up by Roberts. The three new machines bring to eight the number of complete machines for spinning and preparatory processes now offered by Roberts, and represent the sixth addition in the past two years.

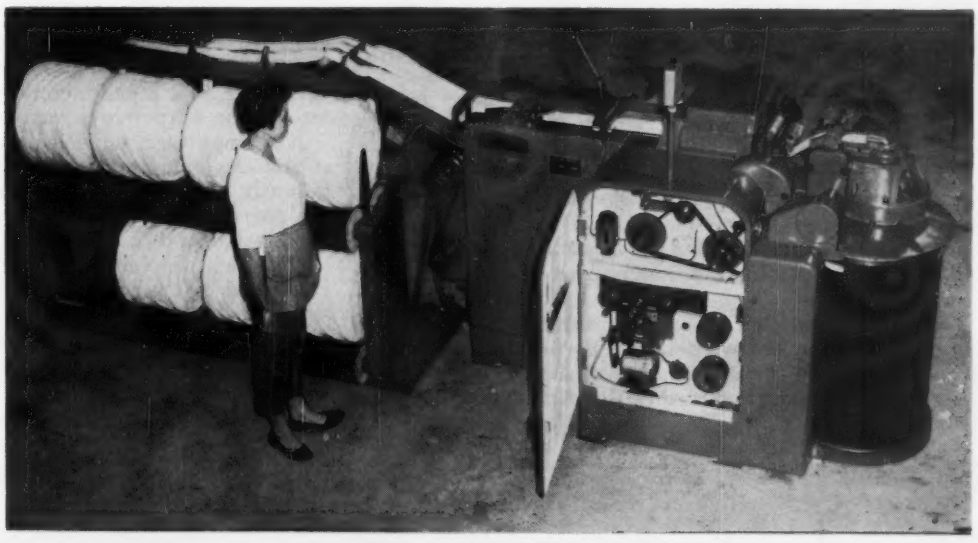
Roberts-Tematex machines, according to Pomeranz,

Robert E. Pomeranz

are more rugged than other machines now available, hold their settings well and provide high production performance. The ParaDrafter parallelizes and drafts the fibers and can be combined with the AutoEvener which performs these operations as well as automatically evening the weight of the delivered sliver through electronic and mechanical means to within plus or minus 1%. ParaBlenders also parallelize and draft but in combination with a blending operation that provides many doublings and sandwich blends the fibers as well.

The three machines feature hydraulic weighting of the delivery rolls, hydraulic lifting of the head for faller bar inspection and replacement; complete elec-

(Continued on Page 62)



Roberts-Tematex AutoEvener for drafting, blending long staple fibers

TEXTILE MERGERS

Some reasons for their increase

By Dr. Leland S. Liang,
TEXTILE MARKETING CONSULTANT

THE LONG-TERM history of American textile manufacturing offers ample evidence that mergers are inherent in the industry. In recent months a new wave of mergers has occurred.

Among the more newsworthy of these has been Burlington's acquisition of James Lees, a big carpet manufacturer, and, a few months earlier, dynamic Princeton Knitting Mills. Other important events in the current "urge to merge" have been J. P. Stevens' take-over of Exposition Cotton Mills, and Indian Head's purchase of Bernhard Ulman, Inc., and the USF-Aspinook Finishing outfit.

Such mergers have far-reaching repercussions, especially in the case of both Lees and Princeton. Both these mills were already major factors in their own branches of the industry. Merging with Burlington would afford them the latter's facilities in research, product development, added distribution channels, and many others. It is surmised that both Lees and Princeton Mills have gained a competitive advantage over their rivals. Indeed, the whole idea of mergers is to acquire a competitive edge.

Mergers in textiles are not new. In the two decades between 1920 and 1940, there were some 45 major mergers, along with numerous minor ones. Slightly more than half of these mergers could be construed as horizontal combinations. During these two decades, production was the dominant factor in the textile industry; and horizontal combination has, as its primary aim, control in production.

Growth by Acquisition

During the decades 1940-1960, probably the most dramatic series of textile mergers were those engineered by Burlington. With a sales volume of $47.3 million in 1940, Burlington's sales rose to $805.5 million in 1959, an increase of almost twentyfold. Even allowing for the changes in price levels, the gains by Burlington during these two decades are phenomenal.

Other examples of significant textile mergers during this period include M. Lowenstein & Sons and J. P. Stevens & Co., both typifying the backward vertical integration. The former being a converter primarily, while the latter a selling agent, and both integrated backward by acquiring spinning and weaving mills. Thus, during this period, J. P. Stevens & Co. has been transformed from a selling agent to one of the largest textile-mill product firms in the United States.

It should be noted again that during this period, unlike the previous two decades, vertical integration has become the dominant form of textile mergers; and vertical integration has, as its primary aim, control in marketing.

It is likely that mergers will proceed in the textile industry during the 1960's, as they have in the past. Mergers are simply one method of adjusting and adapting to changing market conditions and requirements. However, a new technique of integration has been introduced in the textile industry, in contrast to both horizontal combination and vertical integration. This technique is the formation of joint subsidiary, which is new to the textile industry but not to other industries. The precurser of the joint subsidiary is, of course, the joint venture, which has been widely used in the petroleum, railroad, and other industries.

A Child is Born

The most outstanding example in the textile industry of the joint subsidiary technique of integration is exemplified by the Chemstrand Corp. jointly owned by Monsanto Chemical Co. and American Viscose Corp. According to Fortune Magazine's Directory of 500 largest industrial corporations, Chemstrand in 1958, ranked 228th by sales, 111th by profits, 42nd by profits as percent of sales and 6th by profits as percent of invested capital. It can be observed that this joint subsidiary so far has an exceptionally successful record.

Two recent examples of the joint subsidiary technique used in the textile industry are also worth noting. First, Celanese Corp. of America and Imperial Chemical Industries Ltd. of England have entered into a joint subsidiary, resulting in the formation of Fiber Industries, Inc. for the purpose of producing "Fortrel" a new polyester fiber. Second, just a few months ago, Kimberly-Clark Corp. and J. P. Stevens formed a joint subsidiary, known as Kimberly-Stevens Corp. to make nonwoven fabrics.

Probably the joint subsidiary technique will be used more and more by the textile industry in the years ahead, in juxtaposition to other types of integration. The pooling of technical and marketing know-how, the reducing of risks, the reducing of investments, and other factors, make this technique of integration attractive to many textile firms.

It is important, however, to recognize that a joint subsidiary, being an evenly divided ownership, is inherently difficult to manage. Aside from the fact that the parent companies may have different objectives, there are bound to be difficult operating problems.

One such problem is the difficulty likely to be encountered by the president of the jointly owned subsidiary who must deal with the board of directors consisting of members drawn equally from two parent companies. The objectives and business philoso-

(Continued on Page 76)

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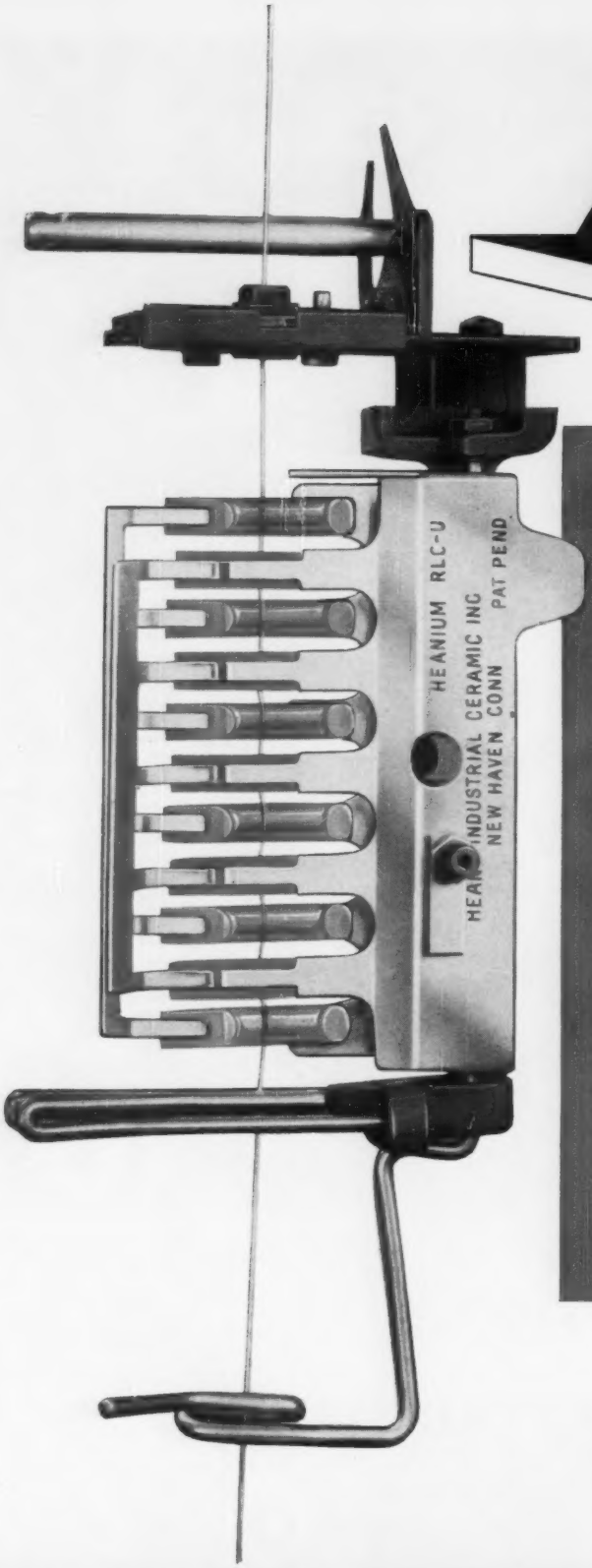
* PATENT PENDING



No. RLC-U Heanium Gate Tension

Heany Industrial Ceramic Corporation is now offering a grid type gate tension equipped with Heanium contact fingers for use on the Universal cone winders.

The new gate tension has a total of only eleven contact fingers, whereas the conventional metal-fingered gate has nineteen fingers. The fewer number of fingers allows the yarn to generate angles from one contact finger to the next, which gives the gate a compensating ability, as well as a snubbing action to compensate for uneven conditions from the supply package.

A unique concave design on the contact fingers gives a much better lateral control of the yarn than the conventional flat face, especially toward the tip end of cone or tube.

The advantages of the RLC-U Heanium tension are:

- Better quality yarn
- Better package formation
- Better overall controlled tension let-off
- Constant multiplication factor

To avoid damage to yarn use

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WITHSTANDS HI-SPEED PRESSURE OF SYNTHETIC YARNS WITHOUT WEAR OR DAMAGE

FRONT
TBU-2A

CUT-A-WAY VIEW SHOWING SMOOTH RADIUS OVER WHICH YARN TRAVELS.

BACK
TBU-2A

FRONT
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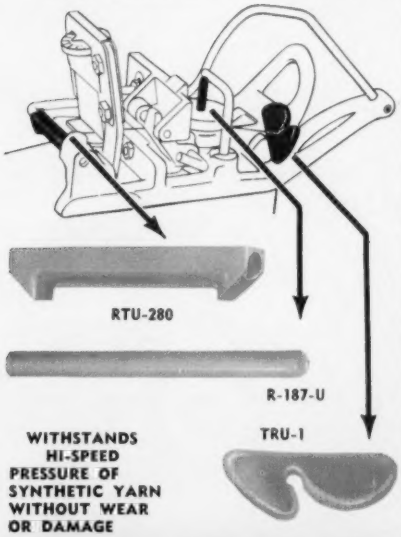
BACK
TBU-2

UNIVERSAL TENSION



WITHSTANDS HI-SPEED PRESSURE OF SYNTHETIC YARN WITHOUT WEAR OR DAMAGE

HEANY INDUSTRIAL CERAMIC CORP.
NEW HAVEN 3, CONNECTICUT

VISIT OUR BOOTH NO. 7

FRIENDS OF TRICOT—New Tricot Institute directors, seated L. to R., are N. O. Robbins, Webco Mills; C. E. Lovett, Deering Milliken; Roy Reubel, J. P. Stevens. Standing, Victor Goldberg, Glen Raven Mills; George Tunick, Bangor Mills; Lee Parsons, American Cotton Manufacturers Institute.

Tricot Promotion Begun

The nation's tricot industry, which supplies most of the fabric used by the billion-dollar "intimate apparel" market, has embarked on an industry-wide promotion program with the formation of the Tricot Institute of America, Inc. Charles E. Lovett, of Deering, Milliken & Co., acting president of the new Tricot group, said an initial budget of $50,000 has been allocated to launch its promotional work. Within two years, he said, the group expects to spend at the rate of $200,000 annually for the promotion program, which will ultimately include an advertising campaign.

Leesona Corp. Income Up

Leesona Corp. (formerly Universal Winding Co.) for the six months ended December 31, 1959, reported a net income after taxes of $1,410,187, equal to $1.77 per share, as against $913,680 or $1.18 per share for the six months ended June 30, 1959. Sales also were up sharply, with Unifil loom winder production said to be mainly responsible for the gains.

New Whitin Machine Orders

Whitin Machine Works has received orders from the Graniteville Co. for 4 Whitin Axi-Flo cleaners, 24 Axi-Feed units and 4 Downstroke cleaners for installation in the Granite Plant and Hickman Division of the company in Graniteville, S. C. Six Whitin Even-Draft drawing frames ordered by Harrier Cotton Mills, Henderson, N.C., will be installed in that company's Mill No. 2.

Knitting Machinery Show

The 1961 International Knitting Machinery and Accessories Exhibition will be held October 11-21, 1961 at the Belle Vue Exhibition Halls in Manchester, England. The exhibition is being staged in Manchester rather than in Leicester as in the past because of shortage of space.

New Textile School Dep't

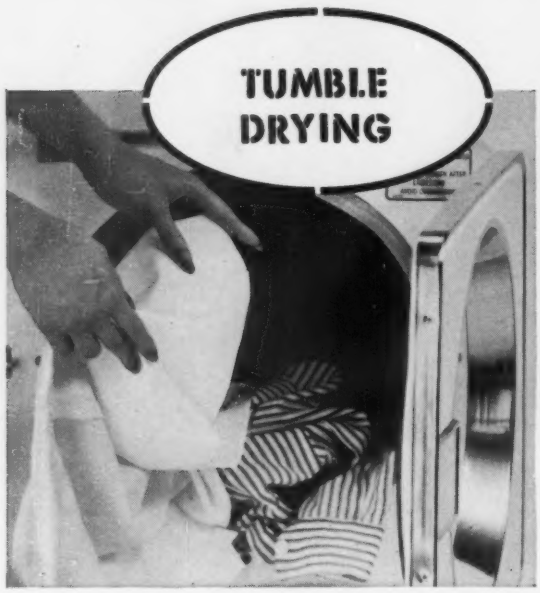
A Department of Textile Technology has been established in the School of Textiles at North Carolina State College, Raleigh, N.C. Prof. E. B. Grover, who is the Abel C. Lineberger Professor of Textiles, has been named head of the new department which was created through the merger of the Department of Fiber and Yarn Technology and the Department of Fabric Development.

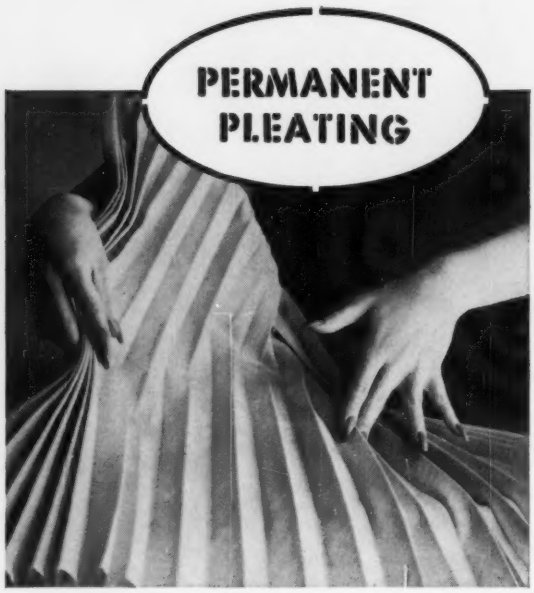
New Enka Sales Office

The merchandising department and New York district sales office of American Enka Corp., producer of rayon and nylon yarns and fibers, are now located at 350 Fifth Ave., New York City. The Marketing Division has headquarters at Enka, N.C.

Saco Frames In Ireland

Saco-Lowell worsted spinning machinery has been purchased by Jeremiah Ambler, Ltd., for installation in its new factory at Ballyclare, County Antrim in Northern Ireland. The new factory, which will be used for the spinning of synthetic and other fibers, will occupy 40,000 square feet. The Ambler firm already is equipped with Saco-Lowell machinery in its Hartleypool, England, plant.

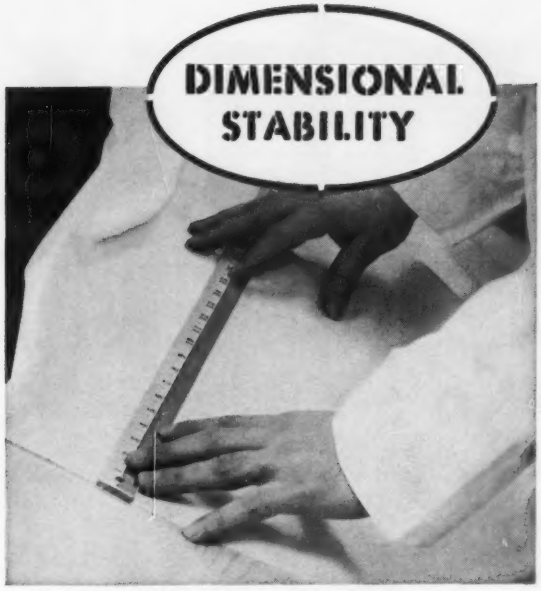




ARNEL*

*This is the official Arnel symbol—evidence that this fabric of this new triacetate fiber has been pre-tested for performance claimed.

ARNEL'S "STAMPS" OF CONSUMER APPROVAL



Separately . . . and in combination . . . these "stamps" of approval are working for you in the consumer market just as successfully as you work with Arnel triacetate in the mill.

You accept Arnel for its running efficiency and processing flexibility. The consumer accepts it not only for its beauty but for its ease-of-care and styling versatility. Here you see just eight of the "reasons-why" for its acceptance.

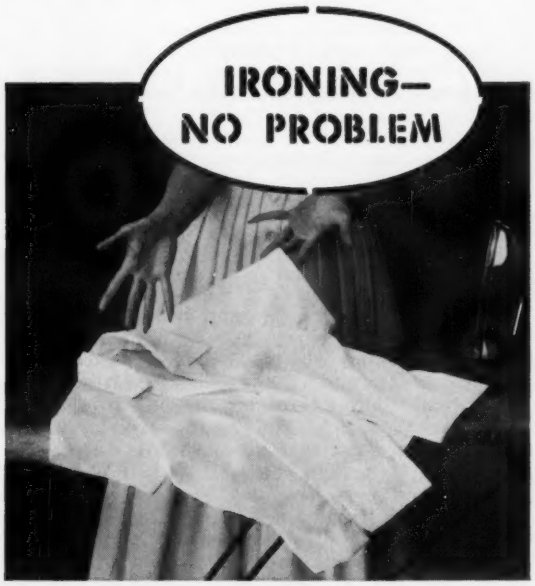
Let Celanese work with you to develop new Arnel fabrics. Booklets 12A, 13A and 14A, containing the important technical procedure and facts about Arnel, are available by writing Celanese Fibers Company, a division of Celanese Corporation of America, Box 1414, Charlotte, North Carolina. Celanese® Arnel®

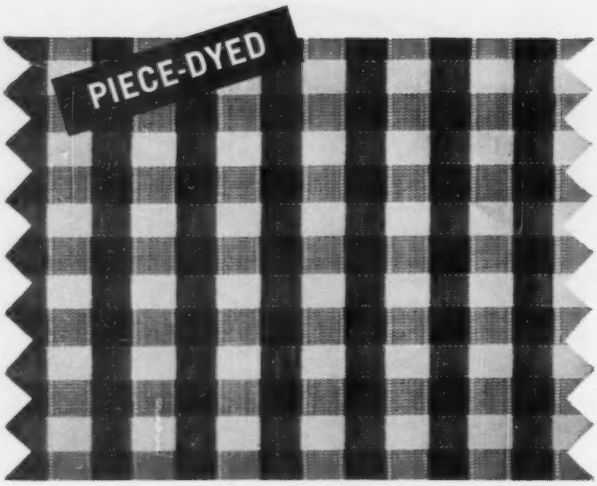
DISTRICT SALES OFFICES: 180 Madison Ave., New York 16, N. Y.; 15 N. Broadway, Des Plaines, Ill.; Western Merchandise Mart, Room 478, San Francisco, Calif.; P. O. Box 1414, Charlotte 1, N. C.; 200 Boylston St., Chestnut Hill 67, Mass.; 3130 Maple Drive N. E., Atlanta 5, Ga.

EXPORT SALES: Amcel Co., Inc. and Pan Amcel Co., Inc., 180 Madison Ave., New York 16, N. Y.

IN CANADA: Chemcell Fibres Limited, 1600 Dorchester Street West, Montreal, Quebec.

Arnel . . . a *Celanese* contemporary fiber





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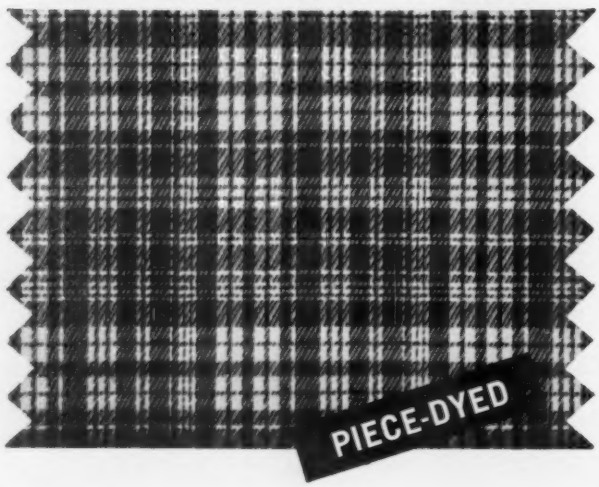


NEW FABRICS

NEW YARNS

Cotton-Rayon Blankets

Blendura, American Enka Corp.'s registered trademark for approved cotton-Enka rayon blends, is used in a line of summer-weight blankets made by Beacon Manufacturing Co. The line, offered in two geometric patterns, includes "Pageant," a multi-colored shadow stripe, and "Gingham," two-tone checks in green, brown, blue and pink. Both are standard 70 x 90, bound with acetate satin. *For further information write the editors.*

Creslan-Dynel Bath Mats

New fiber blends, of Creslan and Dynel, are featured in a large group of bath rugs and mats offered by Martex. The color schemes achieved are credited to Creslan, an acrylic fiber said to accept dye more readily than other fibers. In combination with Dynel, modacrylic fiber, the resultant blend has outstanding washing qualities with the shrinkage margin reduced to about 3%, Martex reported. *For further information write the editors.*

New Bonded Batting

Da-Bon-Air, a new resin-bonded Dacron batting designed for use in popular-priced quilted robes and house coats, has been introduced by Star Woolen Co. Manufactured of 100% Du Pont Dacron Fiberfill, the batting is said to provide maximum loft, or bulk, with the lightest possible weight. Da-Bon-Air weighs only 1½ ounces per square yard. Star Woolen states its high loft will remain through repeated machine washings. *For further information write the editors.*

Topel-Flax Linens

Topel, Courtauld's cross-linked rayon fiber, has been introduced to the domestic linens market by Timely Linens. The fiber is used in a blend of 70% Topel-30% flax. The resulting fabric, which also has a Scotchgard stain repeller finish, is reported to have greater luster and dye stability than linen, and good dyeing properties. Finishes are readily incorporated in to the Topel-flax cloth. *For further information write the editors.*

Acrilan Electric Blanket

Northern Electric Co. is offering a new Acrilan blend automatic electric blanket, the "Challenger," in five decorator colors in single, extra-wide double, and king bed sizes. Features of the line include corner snaps which form snug fitter corners or unsnap for neat folding, and nylon bindings especially treated to resist bacteria. Northern reports the new blanket, which comes in pink, blue, beige, flame and pastel green, is non-allergenic and mothproof. *For further information write the editors.*

Nylon Tunnel

One of the newest aids to space research is a hypersonic shock tunnel that shoots a "bullet" of air through a test chamber at 16 times the speed of sound. The charge to fire the cannon-like device is helium gas under high pressure. The tunnel was developed by Cornell Aeronautical Laboratory, Inc. Choice of the materials for the 5,000-cubic-foot fabric structure was critical; being outdoors it was vital that the fabric have resistance to weathering. It had to be strong enough to withstand changing stresses as gas entered and left, and it had to be impermeable to gases to avoid loss of helium. To meet these requirements, Birdair Structures, Inc., used a nylon-base fabric coated on both sides with "Hypalon," which was introduced commercially by Du Pont in 1951. *For further information write the editors.*

Use of Fiber Names in Labeling

A recent bulletin issued by the Textile Distributors Institute sheds light on an aspect of the Textile Fiber Products Identification Act that may be of interest to textile merchants. The question discussed in the bulletin is whether it is permissible to use either on labels or in advertising, for descriptive purposes, the name of a fiber not actually present in the fabric.

The Institute's counsel advises that it is not permissible to use on a label such terms as "looks like linen", "feels like silk", or similar terms which are intended to suggest the appearance or properties of a fiber not present in the fabric. (Rule 18 of the Rules for enforcement of the Act).

The bulletin points out, however, that the same restriction does not apply with regard to advertising. "It is permissible in advertising to refer to the name of a fiber not present in the fabric where such representation is truthful and not deceptive. Generally, the following guides should be considered:

"1. The reference to the fiber not present in the fabric should be so phrased as to make it clear that it is not intended to imply that the fiber is actually present in the fabric, but only that it is descriptive of certain characteristics or properties of the fiber.

"2. The reference to such fiber should never be made in larger or more conspicuous type than that used to describe the fibers actually present.

"3. The names of the fibers actually present should always precede, in the advertising, the reference to the fiber which is not present; for example, it would be correct to state "Rayon that looks like Linen", and incorrect to state "Linen-like Rayon".

"Under the Fur Products Labeling Act, it is not permissible to use either on labels or in advertising, the name of any fur-bearing animal, unless the hair or fiber of such animal is actually present in the fabric."

Golf Tournament Plans Moving Ahead

Plans for an outstanding 1960 golf tournament by the Textile Distributors Institute are proceeding ahead at top speed, according to Samuel Schwartz, Cadillac Textiles, Inc., chairman of tournament committee. Advance reservations indicate that attendance will be heavy, Mr. Schwartz reported. He urged all those who have not made reservations and wish to do so to get in touch with TDI headquarters at once.

The tournament this year will be held for the first time at the Concord Hotel, Kiamesha Lake, N.Y., near Monticello, in Sullivan County, about 90 miles from New York City. It will be a three-day affair from June 22 to June 24, 1960, and is strictly limited to men. According to Mr. Schwartz, the Concord Hotel provides luxurious accommodations with all rooms air-conditioned. There are two golf courses, one of 18 holes and another with nine holes as well as facilities for boating, fishing, swimming, tennis, baseball and volley ball.

Reservations will be accepted only for the entire three-day period, and members may have as their guests representatives of mill, yarn, factor, banker, broker or dyer interests.

Samuel Schwartz

Now in preparation is the annual amateur musical lampoon on textile affairs, a traditional high point of the golf tournament. Persons who wish to participate in the show are invited to get in touch with Miss Hilda A. Wiedenfeld, executive director of the Textile Distributors Institute at its office, 469 Seventh Ave., New York City.

Dyeing Plant Vacation Shutdown

Textile dyeing and finishing plants in the middle Atlantic region will shut down for a vacation period starting July 4 and ending July 17. The area affected includes New York and New Jersey.

Bernson Now TDI Member

Associate membership in the Textile Distributors Institute has been extended to Bernson Silk Mills, Inc., 444 Park Avenue South, New York 16, N.Y., according to Miss Hilda A. Wiedenfeld.

Jefferson to Be Honored

Floyd Jefferson, chairman of the board of Iselin-Jefferson Co., Inc., will be the guest of honor on May 17, at a dinner given by The Textile Square Club at the Hotel Astor.Proceeds will be used for the club's camp fund for underprivileged children. Tickets are $25 each and may be obtained from George Becker, secretary, 66 Worth St., New York 13, N. Y.

Reuben Kittenplan Dies

Reuben Kittenplan, president of Chopak-Kittenplan Corp., died on March 27. Mr. Kittenplan was well-known in the textile trade, and was formerly president of Charmette Fabrics Corp. In past years, he had been active in the affairs of the Textile Distributors Institute and was also active in philanthropic and civic matters. He is survived by his widow, Gertrude, a son, Stephen, who is with the firm, and a daughter, Julia.

here are two TESTS to check KNOTTING QUALITY

By Erb N. Ditton,
TEXTILE CONSULTANT

"Will the knot hold?" when subjected to a steady strain, and "How will it stand up under sudden impact?" are the two questions which must always be considered when knots are used in textiles. With the advent of so many new fibers and finishes it is necessary to obtain definite information on these two properties of knots so that correct decisions and choices of materials can be made.

For exact answers to the questions asked we need specific test methods designed to test these properties. Such tests supplement the standard knot tests such as the Knot Tensile Test given in ASTM D204-57T, Tests for Sewing Threads. The ASTM tests merely measure the effect on tensile strength due to a knot being tied on the thread, but give no information as to the knot holding ability when two separate ends are tied together; neither do they give information as to the impact resistance of the combination.

The Knot Holding Test and Knot Impact Test, taken from the author's experience and development work, are here presented for the purpose of offering specific test methods needed to obtain the desired information.

Knot Holding Test

Purpose

To measure the knot-holding ability of threads and twines tied together for such end uses as netting or mattress tufting twines.

Equipment

Tensile Strength Tester as described in ASTM-D 76-53, Standard Specifications for Textile Testing Machines.

Procedure

1. Draw two 18-inch lengths of thread from each of two packages, being sure that the twist remains undisturbed.
2. Join the two strands by a single weaver's knot, as shown in Figure 1, marking the resultant four ends A, A-1, B and B-1, as indicated. It is essential that the A ends be those from the crossed loop of the knot.
3. Place ends A and A-1 in one clamp of the testing machine, and ends B and B-1 in the other. Permit specimen to be pre-tensioned for one minute at a tension equal to approximately half the tensile strength of the material under test.
4. Remove specimen from clamps and permit it to relax in a free state for four hours.
5. Replace specimen in the clamps of the machine, start the machine, and record the tension at which the knot slips. (Disregard any initial slip of a low order of magnitude, which may occur with smooth synthetics.

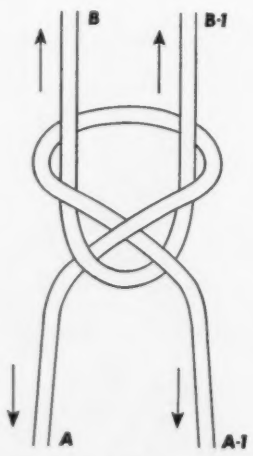


Fig. 1

Knot Impact Test

Purpose

To measure the impact resistance of knots. This property of the knot is important in certain end uses as, for example, the lacings found in electric circuits.

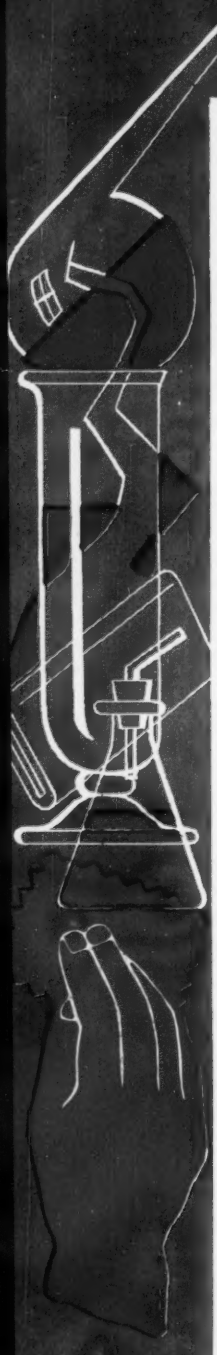
Equipment

Tensile strength tester of the Constant Rate of Loading type (Incline Plane), equipped with a special lever on the movable carriage. This lever is designed to prevent the carriage from moving until it is released by the operator.

Procedure

1. Draw two 19-inch lengths of test specimen, being sure that the twist remains undisturbed.
2. Place an 11-inch gauge mark in the center of each specimen.
3. Tie an overhand knot loosely (do not pull tight) in the approximate center of the gauge mark.
4. Insert the knotted specimen in the testing machine clamps, set at 10± 0.5 inch width, so that the 11 inch gauge length of the sample is exactly centered between the nips.
5. Place a load of approximately 50% of the previously determined Standard Knot Strength in the carriage. Insert chart in the tester.
6. Start machine, but do not release carriage until approximately 75% of the machine traverse has been completed. For example if the load in the carriage is 20 pounds, the carriage should be released when the pen on the chart shows a load of 15 pounds has been reached.
7. If the knot has broken, repeat the test. However this time release the carriage when the pen on the chart reaches a point 0.5 pounds lower than that of the first test. For example, using the previous example of a 15 pound release point, the carriage would now be released at a reading of 14.5 pounds. If the knot still breaks, continue the test with decreasing 0.5 pound increments until no break occurs.
8. If the knot does not break in the first test, repeat the test with increasing 0.5 pound increments until a break occurs. ■

DYEING and FINISHING SECTION



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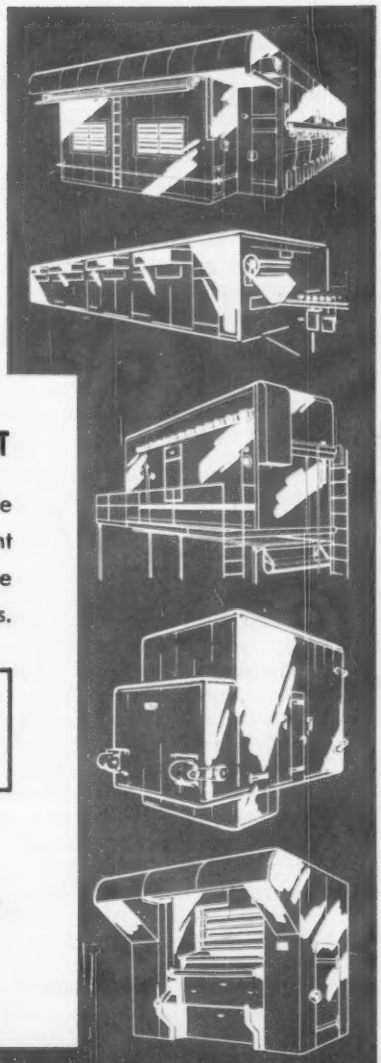

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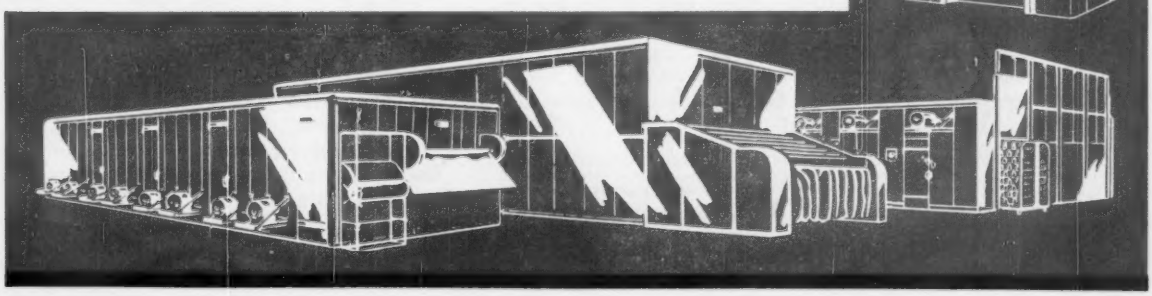

new developments in

pressure beam dyeing

By Walter J. Newcomb & George C. Ward

DYERS have long realized the need for high temperature dyeing of the new synthetic fibers. Gaston County Dyeing Machine Co. decided to make a careful study of this situation in co-operation with fiber manufacturers and dyers in order to improve machines and methods used to dye fabrics made from synthetics, naturals, and blended fibers. Part of the work reported in this paper was carried out in co-operation with the Dyeing & Finishing Laboratories of Celanese Fibers Co. and the Du Pont Co.

There are only two common methods of dyeing—you either have to move the fabric through the dye liquor or the dye liquor through the fabric. It was apparent that to make a pressure piece-dye kettle, such as a dyebeck or jig, the cost would be prohibitive due to the construction of this type of machine. It was also realized that there was a strong possibility that creases and rope marks would form on a pressurized dye beck which would be practically impossible to remove once they are set at a temperature above the boil. Likewise, there was also the strong possibility in a pressure jig that creases would form, and unknown to the operator, would seriously damage a complete roll of fabric.

Du Pont attacked this problem by development of the Barotor. Some difficulties have been experienced on this machine which are well known to practical dyers. Thus, the next plausible step was to design a machine to circulate the dye liquor through a roll of fabric, under pressure. This is basically the same principle as package yarn dyeing or yarn beam dyeing.

In America this was done by the use of one large beam, but a number of Colorfix Machines have been introduced in Europe, made under the Bellman patent. In this machine 3 to 6 beams are introduced into the autoclave. American experience has shown that the single beam is more adaptable to our procedures. It has been found in package dyeing of yarn, that more satisfactory results are obtained on a 1⅝" tube, than on a ⅝" tube. This principle likewise follows in dyeing fabric on beams. Beams have been fabricated here with a diameter of as much as 4 feet. On a beam of this size, fabric of reasonably open texture may be dyed in batches up to 3500 yards. On the contrary, using the Colorfix Machine, the largest size roll used in Europe contains about 300 yards.

In many cases in Europe, they dye single pieces of quite tightly woven fabric on each beam, but only put on 60-90 yards. Extreme care must be used to have the fabric wound with the same degree of hardness, otherwise there will be considerable variation in shade from beam to beam.

The authors are employed respectively by Gaston County Dyeing Machine Co. and Celanese Fibers Co. Their paper was presented at the 1959 national convention of the American Association of Textile Chemists & Colorists, Oct. 9, 1959, Washington, D. C. and was published first in the American Dyestuff Reporter, Feb. 8, 1960.

The basic design of the American dyeing machine is a horizontal kier with the beam held in a horizontal position. The machine has reverse flow inside-out and also outside-in. It has been found that most fabrics can be dyed with inside-out flow; in such case, however, it may be necessary to reverse the flow on some tightly woven fabrics. It has also been found to be helpful to have the following new features:

Automatic heating and cooling.

This is done through an exchanger. This exchanger is controlled through the control panel which gives predetermined rate of rise and also a predetermined holding time instrument. The temperature can be held 1°F, which is very helpful in dyeing some fabrics and also some critical shades. The controller maintains preset temperatures at all times through the exchanger.

Automatic pressure and flow control.

The desired dyeing pressure is preset on the control panel and is automatically controlled and maintained throughout the dyeing cycle. The pressure and flow may vary with different size batches, and also with fabric construction. The flow control valve is always closed when the dye pump is not running and it also closes during reversal periods. The valve also closes before the flow is reversed from outside-in to inside-out, or vice versa. After the flow is reversed, the valve slowly opens. This eliminates sudden surges which disturbs the position of the fabric on the dye beam. A flow recorder can be installed when desired. This will give a permanent record of each dye lot.

Automatic static pressure chamber.

With the static pressure chamber, compressed air can be injected into the vessel. This acts as a cushion which allows the dye pump to maintain a constant flow.

Closed pressurized expansion tank.

The closed expansion tank can also be used with the compressed air cushion for pumping and also with this tank, the entire dye charge can be used when dyeing above the boil. With the open tank when dyeing above the boil, the expansion must be cut off, thereby losing the dye liquor in the tank.

Running wash system.

Clean water is fed to the dye pump from the expansion tank, through a large pipe line. The clean water is forced through the dye beam and then exhausted to a drain sewer. This gives a much cleaner and faster wash.

(Continued on Page 50)

A little KALEX prevents a lot of metal contamination damage

Metal contamination entering your processing solutions from equipment or process water cannot be seen, but altered dye shades, discolored whites, excessive crocking, iron damage in bleaching, weakened action of your detergents and finishing chemicals caused by metal contamination are all too evident and costly.

A small amount of KALEX organic sequestering agent prevents metal contamination. There is a KALEX product for each metal contamination problem. Information and technical assistance available on request.

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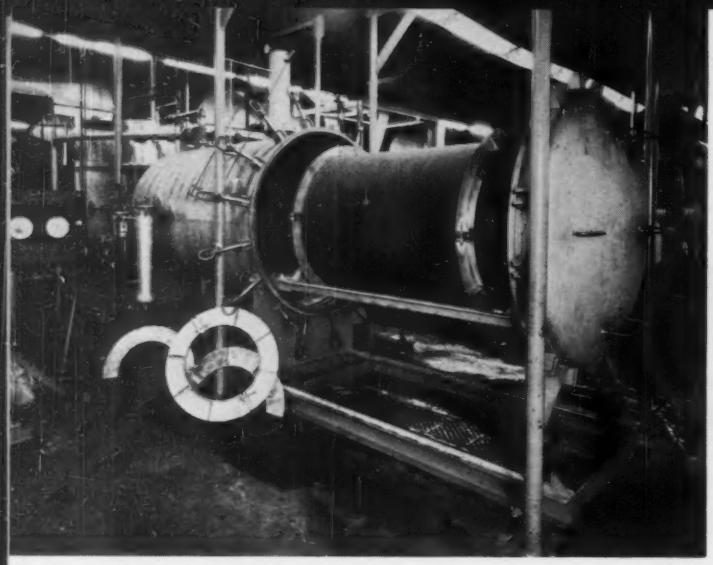
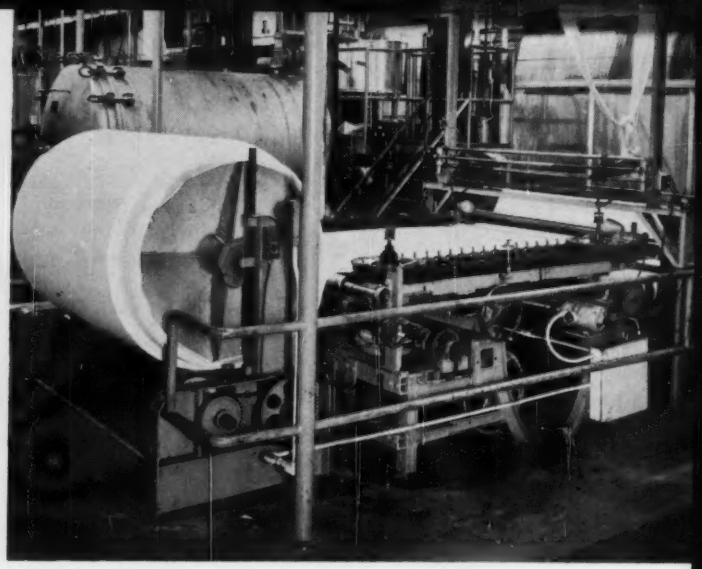


BIG BUNDLE—Up to 3,500 yards of cloth on one beam can be dyed in this high temperature, high pressure dyeing machine made by Gaston County Dyeing Machine Co.



BIG ROLL-UP—For level dyeing, preparation of the beam on a batcher that maintains proper tension is important.

The automatic beam revolving device.

The beam is slowly revolved by a constant speed driving mechanism. This aids penetration and gives a slight agitation during the scouring and dyeing cycle. This will tend to minimize shading and help produce level dyeing from end to end. It will also move or help to dissipate any air bubbles that may form between layers of fabric. These bubbles sometimes cause light spots in the fabric.

TYPICAL PREPARATION PROCEDURES

In order to get a good dyeing job, the fabric and the beam must be properly prepared. The following procedures are suggested:

1. Fabrics with a high percentage of shrinkage should first be boiled out. This is necessary to take out the initial shrinkage before dyeing, to give a beam which will maintain a constant density throughout the dyeing process, and to give a final fabric of good dimensional stability.
2. The fabric should, if possible, be batched wet or damp, since the fabric seems to lay better in this stage.
3. It has been found that more satisfactory results have been obtained if a cotton leader is tightly wrapped around the beam before the batching of the fabric to be dyed.
4. Care should be taken in batching so as to place the fabric evenly over the perforations and free from creases and folds.
5. The fabric should overlap the perforations on each end 1½ inches to 2 inches for woven fabrics, but 2 to 3 inches for knitted fabrics.

Where a dyer is running fabrics of a wide variety of widths, he will find it advantageous to have on hand beams with perforations to suit each width of fabric. The blocking off of perforations for narrow width fabric is not recommended. However, the use of a stainless steel sleeve in lieu of a beam of the proper width, has been used with success.

TYPICAL DYEING PROCEDURES

Arnel Triacetate Tricot.

The first Arnel fabric, successfully dyed on pressure beam dyeing machines, was tricot. On these pressure beam dyeing machines, many millions of pounds of Arnel tricot have been dyed into a complete range of shades, resulting in a fabric of good dimensional stability, good anti-static properties, completely heat set and possessing ease-of-care properties. In order to get heat setting properties, the Arnel tricot is treated for ½ hour to 45 minutes at 250°F, but normally dyeing is not conducted above 220°F, since many of the dyestuffs tend to break down at higher temperatures.

Polyester Staple Fibers and Cotton or Rayon

These fabrics are prepared for dyeing and finishing as all-cotton fabrics except for a few modifications to control the pilling tendencies of polyester fibers. These fabrics are usually scoured and heat-set to give dimensional stability. These blends with cotton can be union and cross-dyed satisfactorily by using disperse dyes on the polyester fibers and direct dyes on the cotton. In a similar manner, fabrics made of blends of polyester and rayon can be union or cross dyed.

Blends of Polyester Fibers with Nylon.

These fabrics can be dyed by using disperse dyes on the polyester fibers and acid dyes on the nylon. They can be dyed either by a one bath or by a two bath method. The usual dyeing procedure will take 3-4 hours and is normally conducted at around 230°F.

Blends of Polyester Fibers and Wool.

Commercial quantities of Dacron-wool fabrics are being dyed on the pressure beam dyeing machine these days. Such fabrics are dyed with disperse dyes for the polyester fibers and either level-dyeing chrome or neutral-dyeing premetalized acid dyes for the wool. For heavy shades, most of this fabric is probably being dyed by a two bath procedure, but for light and medium ones, the one bath method is used by applying disperse dyes and neutral acid colors simultaneously.

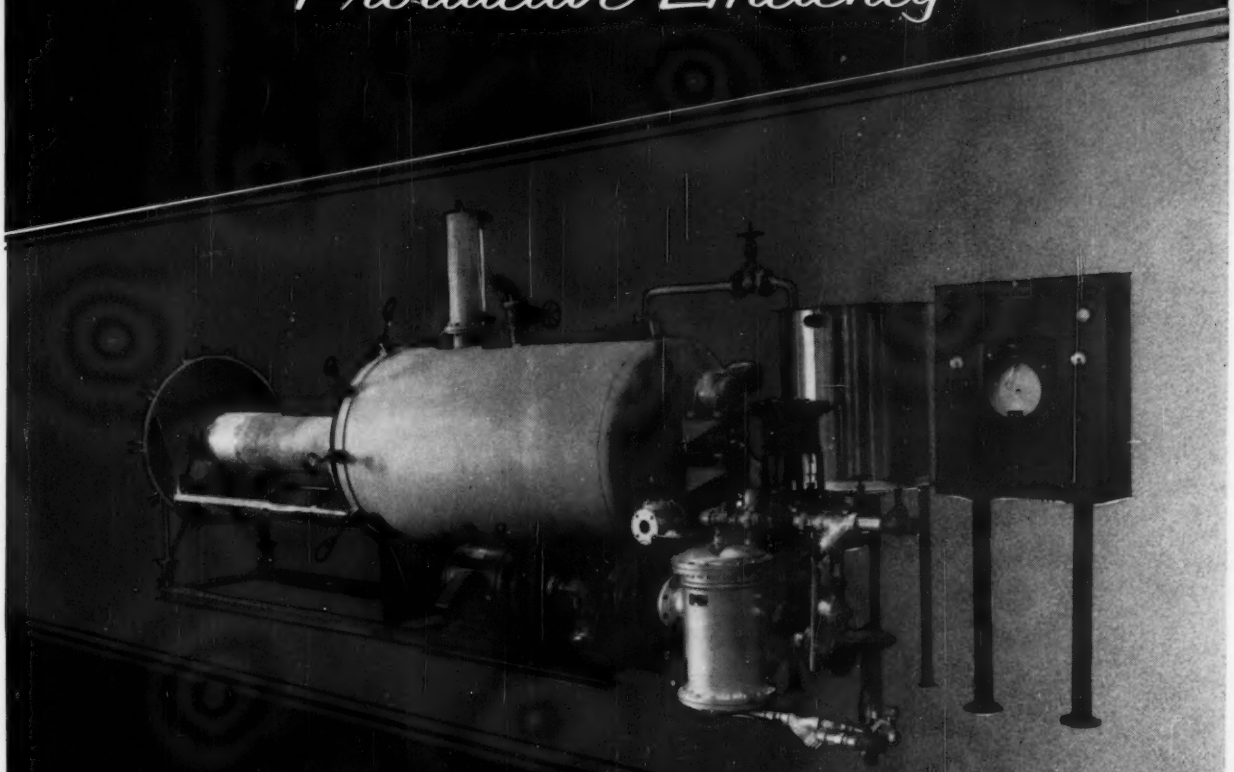
An advantage of pressure dyeing on Dacron-wool fabrics is the fact that a larger amount of the dispersed dyes is picked up by the Dacron, thus less staining of the dispersed color occurs on the wool. This is important since dispersed dyes are notoriously poor to light on wool. It is well known that wool loses some of its strength when exposed to high temperatures for long. Therefore, good laboratory recipes must be available so that the dyeing process is not continued for extensive periods.

Usually this blend is not dyed above 230°F. Even though the wool is tendered, the overall strength of the fabric is adequately taken care of by the higher strength of the polyester fiber and the ultimate result is a better appearing and better performing fabric

(Continued on Page 52)

PROVEN

Productive Efficiency



GASTON COUNTY pressure dyeing machines for FABRICS not only cut production costs, but improve the quality of the finished product.

Fabrics made of synthetic fibers have a much greater affinity for dyestuff when the dyeing process is carried out at temperatures of 230° F to 250° F.

This method produces more level shades, better wash fastness, better resistance to crocking, and the saving in dyestuff and chemicals is sometimes as much as 50% compared to conventional dyeing in open machines at lower temperatures.

Machines are available with "one-way" or "two-way" flow as required by material to be processed.

Other features include heat exchangers for automatic heating and cooling, automatic pressure and flow controls, static pressure chambers, pressurized expansion tanks, running wash systems and automatic beam revolving devices.

Machines are custom built to individual mill requirements.

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Gaston County Dyeing Machine Co.

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260 Kleet St. E. Toronto

Pressure Beam Dyeing

(Continued from Page 50)

than would be obtained if the fabric were dyed on a dye beck for a much longer time and with the use of a carrier or accelerant.

Fabrics of 100% Continuous Filament Polyester

This fabric, particularly in ninon & marquisette constructions must be heat set before dyeing to obtain dimensional stability and to improve wrinkle resistance. This is necessary because there is considerable residual shrinkage in filament polyester fibers. The usual methods for heat setting can be used. This heat set fabric may then be satisfactorily dyed on the pressure beam dyeing machine using recommended dispersed type dyestuffs at temperatures in the 230-240° range.

ADVANTAGES OF PRESSURE BEAM DYEING

Dyeing at temperatures of 230 to 250°F causes a very great increase in the rate of dye absorption on triacetate and polyester fibers. At these elevated temperatures, there is more complete dye exhaustion which can result in appreciable saving of dyestuff and chemicals, which has been known to run as high as 50%.

Further advantage of high temperature dyeing is the increased rate of penetration of the dye into the individual filaments. Complete penetration usually results in better fastness to washing, crocking and sublimation than in dyeings where the dyestuff has not penetrated well. High temperature dyeing eliminates the use of carriers or accelerants, which are rather expensive materials, may have toxic effects, may have deleterious effects on the fibers and if left in the fiber may seriously effect the light fastness of the dyeing.

Dyeing on pressure beam dyeing machines allows shorter dyeing times and less labor, thus resulting in lower costs.

The beam dyeing equipment, as made in the United States, is capable of maintaining temperatures of 250°F or even higher. The machine is suitable for light weight fabrics or fabrics that have a weave open enough to permit liquor flow through many layers of fabric. These machines have been designed for the dyeing of both warp knit fabrics and woven fabrics of synthetic fibers.

While a number of advantages have been listed for the use of the pressure beam dyeing machine, there are still some disadvantages.

Triacetate fabric, and to some extent, other synthetic fibers, when dyed medium to heavy shades under pressure on a beam, contain some wild moire. Some of the first batches were very bad for this defect. However, as experience has been gained, particularly in regard to batching of the fabric, this defect has become less and less apparent.

Some of the dyestuffs normally used for the dyeing of synthetic fibers, tend to decompose at high temperatures. This is particularly noticeable in the azo reds; however, there is now available an adequate range of dyes for all shades for all fibers, normally dyed on pressure beam dyeing machines. Most dye manufacturers are aware of this problem and have prepared selected lists for pressure dyeing.

Some fibers, particularly wool, when subjected to high temperatures lose some of their strength. This problem has not been completely resolved, but the fabrics being produced today from polyester/wool blends do have adequate strength.

New Reactive Dyestuffs Announced

Sandoz, Inc., has introduced Drimarene-Z brands, the first group of a new range of reactive dyestuffs. They are concentrated products which have been especially developed for printing cotton and viscose rayon filament and staple fiber. Along with the inherent properties of reactive dyestuffs they have other good properties. The stability of the printing pastes means they can be stored for a considerable time without deteriorating; the unfixed portion of dyestuff can be readily washed off, thanks to its low substantivity. The Drimarenes possess little or no affinity for cellulosic fibers. The low substantivity also prevents the take-up of loose dyestuff from the washing baths and the consequent danger of staining on the unprinted parts of the design. The new products possess good stability to steam and heat and can be fixed by short steaming or treatment in dry heat. According to Sandoz, a simple printing method which is applicable with all the members of the Drimarene range allows individual brands to be combined in any desired proportions. All these properties make for another important characteristic of the new dyes: excellent reproducibility of shade.

In roller and screen printing, the new dyes are claimed to possess all the essential properties of reactive dyestuffs: they form a stable chemical linkage with the fiber, which results in high wet fastness; they can be printed alongside dyestuffs of other classes; they give shades of great purity and brilliance. The range, at present, consists of 13 patented brands. *For further information write the editors.*

New ASA Textile Standard

American Standard L22, to be published by the American Standards Association, describes what "wash and wear" products are and the performances to be expected from such products. The new standard is the result of several years' effort by over 30 textile, retailing and consumer organizations working under ASA procedures. The project was sponsored by the National Retail Merchants Association.

Basic characteristics covered by the standard include shrinkage, color fastness, wrinkle or crease resistance, mildew and rot resistance, and minimum care. Any textile or apparel product, labeled as meeting L22 requirements, will permit the consumer to know just what to expect in the way of performance and wear, and also the best way to clean them. The new standard is composed of 75 separate American Standards covering three textile groups.

While the L22 standard is voluntary, as are all ASA standards, NRMA is urging its member stores to adopt it and to inform their customers about it. Provision is included in L22 for certification of items to be labeled and for test methods to be used for evaluation of items under the standard. Special tags will spell out for the consumer proper handling and laundering of every item covered by L22. Special permanent labels will identify it as complying with provisions of the standard.

ASA is now accepting pre-publication orders for the standard. For further information write to American Standards Association, Dept. PR140, 10 E. 40th St., New York 16, N. Y.

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Caprolan leads in carpet test conducted by Allied Chemical

Final conclusions drawn from a wear test of carpet made with Allied Chemical Corp.'s Caprolan textured continuous filament nylon and other carpets made of spun nylon, wool, and acrylic fiber were revealed last month. The test was conducted by laying the carpets on stairs in Pennsylvania Station, New York City, and subjecting them to wear by an estimated 1,500,000 commuters.

Fred W. Noechel, manager of Allied's fiber technical service, reported that the test proved that textured Caprolan wore best, retaining the greatest proportion of its original pile height and weight. The continuous filament nylon also performed well in terms of texture retention and cleanability, he said. After 55 days of steady wear the wool and acrylic fibers wore down on the stair areas while the nylon was virtually unaffected, Noechel stated. Of the four carpetings, all priced at $12.95 per square yard, Textured Caprolan carpeting emerged as the maximum consumer value in terms of wear, ease of care and texture retention, according to Noechel.

Compressometer readings were taken at the beginning of the test on all four carpet sections before installation to determine pile heights and again after 1,500,000 traffics, to determine the degree of change in pile height. In the stairway steps areas, Noechel said, the textured Caprolan nylon carpeting retained a greater proportion of its original pile height than the spun nylon, wool and acrylic carpets. In the areas that had been subjected to regularly scheduled on-location cleaning, the Caprolan carpet also was the best of the four carpets, retaining 83% of its original pile height, he declared.

To determine the degree of wear experienced by all test carpets, fiber loss studies were conducted by an independent laboratory. The tabulated data, according to the testing agency, showed that in every instance of tread-edge wear and flat-floor wear, the textured Caprolan nylon carpet showed the minimum loss of fiber.

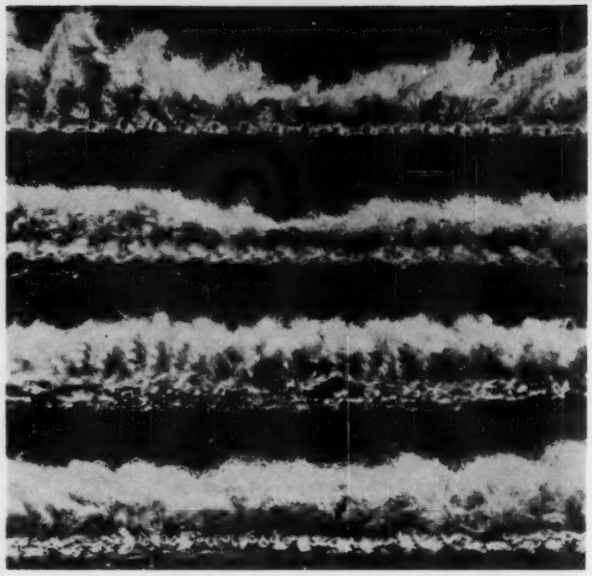
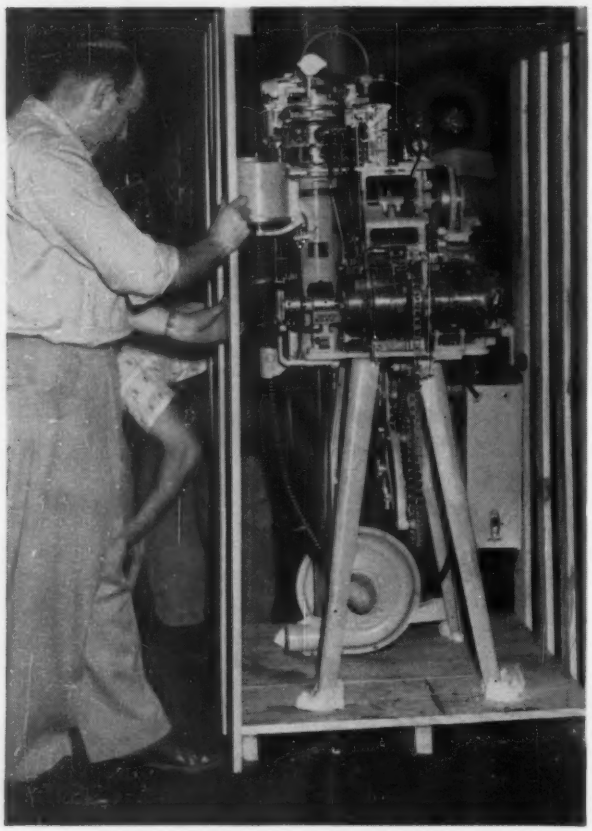


PHOTO FINISH—This picture shows tread edge wear of four carpet samples in Allied's test. From top to bottom they are acrylic fiber, wool, spun nylon, and Allied's Caprolan textured filament nylon.

Soil retention studies, based on carpet weights of original samples compared to carpet weights of tested samples, were made by an independent laboratory using standard methods of testing. Textured Caprolan, the test revealed, retained the least amount of soil—19.1%. Wool carpeting, with 28.3% showed the highest soil retention. In order to judge the cleanability of the various carpetings, both wet and dry on-location cleaning methods were applied during the 55-day test. It became evident that textured Caprolan carpeting was superior in cleanliness and texture restoration to carpets made of the other fibers, Noechel said.

Summing up the results of the test, Noechel said that nylon was the best of the four samples tested in terms of wear, ease of care and texture retention.



New Hosiery Machine

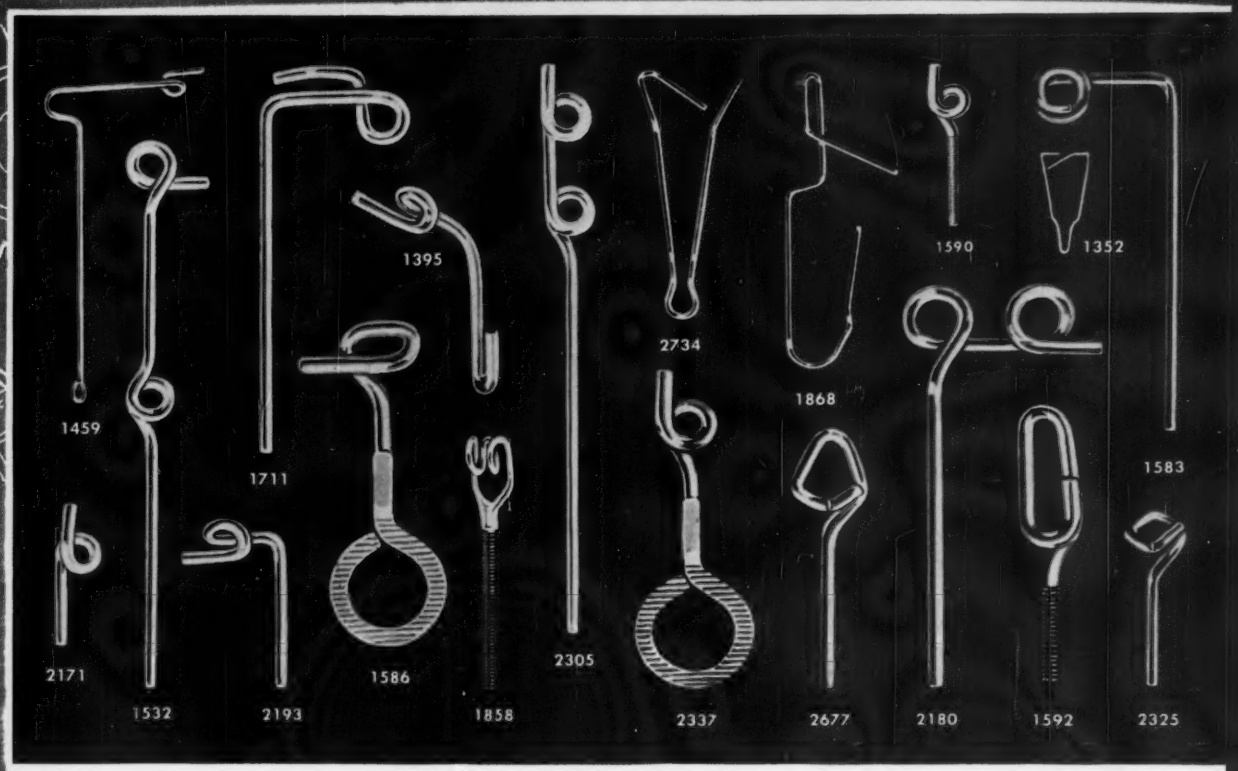
Textile Machine Works is gradually increasing production of its "Reading-Booton" 400-needle twin-feed women's seamless hosiery machine to more than 200 units per month. The machine has been in use in England and on the Continent for several years. Textile Machine Works reports that the machine is capable of knitting stretch yarns as well as the conventional types, and will knit various styles of micro-mesh with plain or micro foot in addition to regular fabric. Standard equipment includes two feeds in welt, afterwelt, leg and foot; single feed in heel and toe.

Six yarn fingers are available on the main feed and three yarn fingers on the auxiliary feed. The machine is also capable of producing mock fashion and identification marks, demi-toe, plain and "Y" heels. Delayed looping course, warning light signals, slow-down for yarn changes, electric stop motion, and end-of-cycle cut-off switch, are also standard features, as well as the ability to knit hosiery applicable to the "sewn toe" method of closure.

The machine also possesses an individual and fully automatic vacuum take-down, controlling the fabric from beginning to end of knitting. Company representatives state that the graduating attachment with which the machine is equipped provides uniform stitch control throughout the entire stocking, resulting in consistent loop lengths in all areas. *For further information write the editors.*

MORE SEAMLESS COMING—Getting packaged for shipment is this "Reading-Booton" 400-needle women's seamless hosiery machine made by Textile Machine Works.

MACHINERY and EQUIPMENT SECTION



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This month's machinery show at Atlantic City

Gateway to textile's future

A revolution is taking place in mill productivity paced by machines that run faster, need less manpower, produce more and better fabrics at lower cost.

By the Editors

SINCE THE LAST textile machinery exhibition in Atlantic City in 1954, substantial technological progress has been made by machinery manufacturers in the development of new and improved processing equipment and methods to raise the quality and lower the cost of yarns and fabrics.

This last intervening period between exhibitions has come up with some startling innovations including drastic changes in previous concepts of production such as textured yarns, weaving with shuttleless looms, filling preparation, new techniques for making non-woven fabrics and a host of improvements in basic operations in yarn preparation through dyeing and finishing. All have combined to provide the modern mill with manufacturing advantages unheard of a few short years ago.

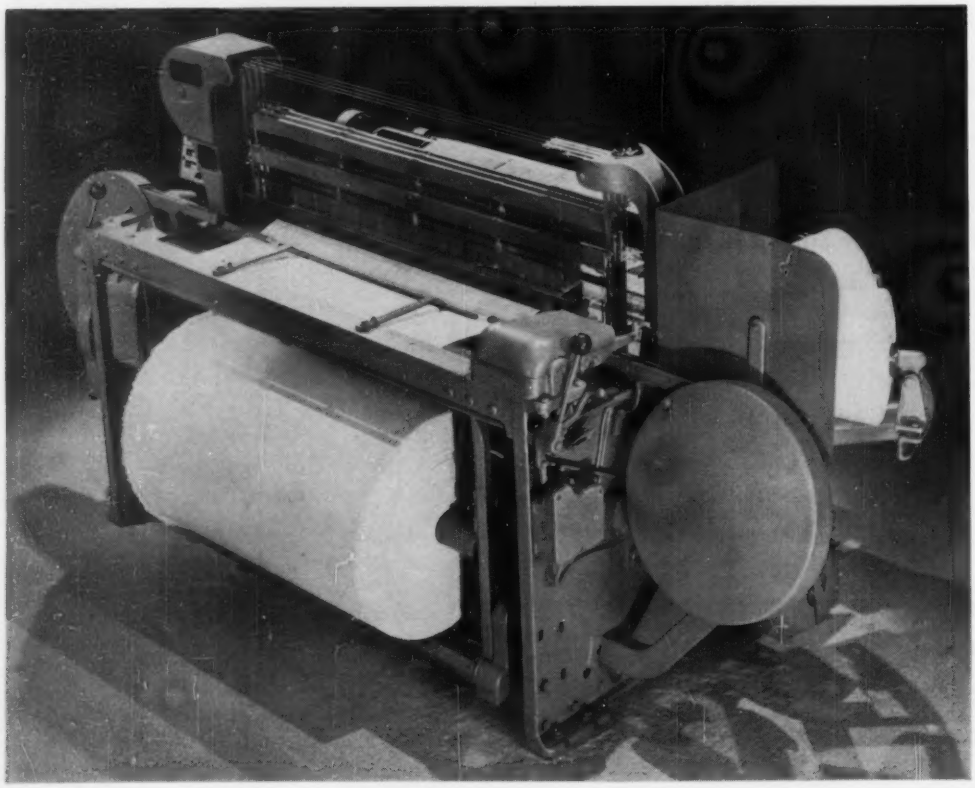
The impact of pure and applied research in textile machinery has been so dramatic that some of the machinery considered advanced in 1954 is now technically obsolete.

Spinning has not reached the push-button stage yet, but in the past few years there has been great progress made in decreasing human effort per pound produced. Yarns produced are approximately 10 to 15% stronger than six years ago. Direct labor hour requirements in spinning have been reduced in some mills by 40% and power requirements in comparable conditions are down 8 to 10%. Maintenance costs have dropped considerably and some mills have reduced oil, grease and lubrication costs in this process by 80% or more.

Engineering changes and modifications of the spinning frame such as in the creel, the drafting system, the spindles and the several design changes in frame mechanism plus the use of antifriction bearings give support to the fact that automation has been gradually applied to this machine. These changes show that progress in spinning frame manufacture is a continuous development. Machine design, performance and function is keeping abreast or ahead of the industry's need for these developments and profitable use of them.

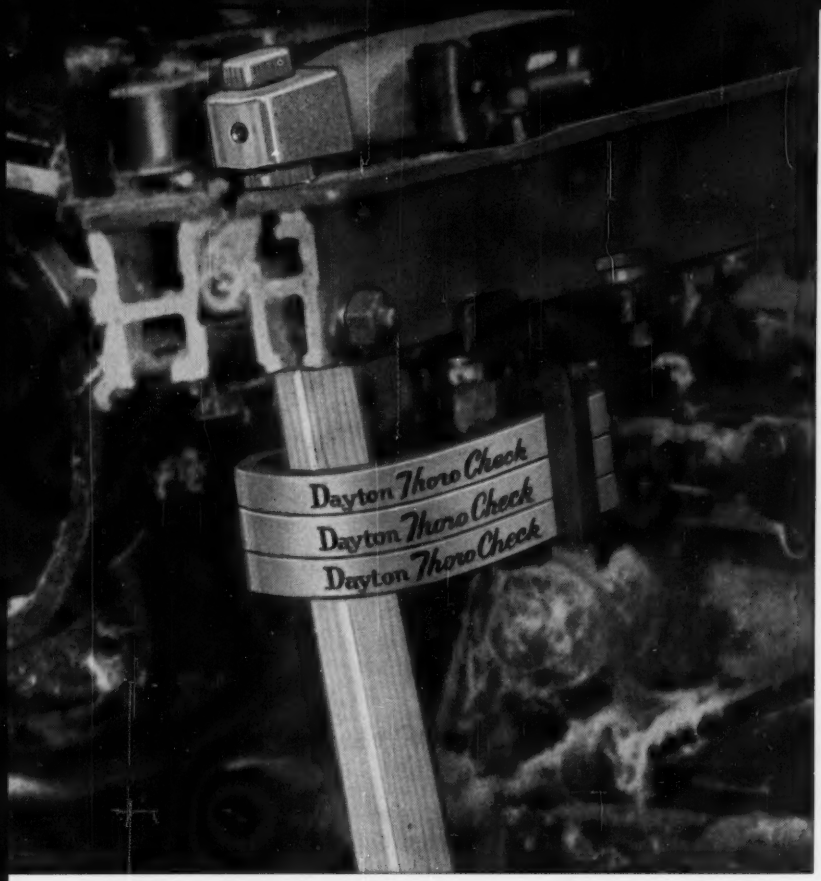
Specific operational benefits are seen in the present use of large roving packages, coarser roving sizes, larger spinning rings, larger bobbins and higher spindle speeds. All of these, in turn, reflect lower operational costs in the preceding or succeeding operation.

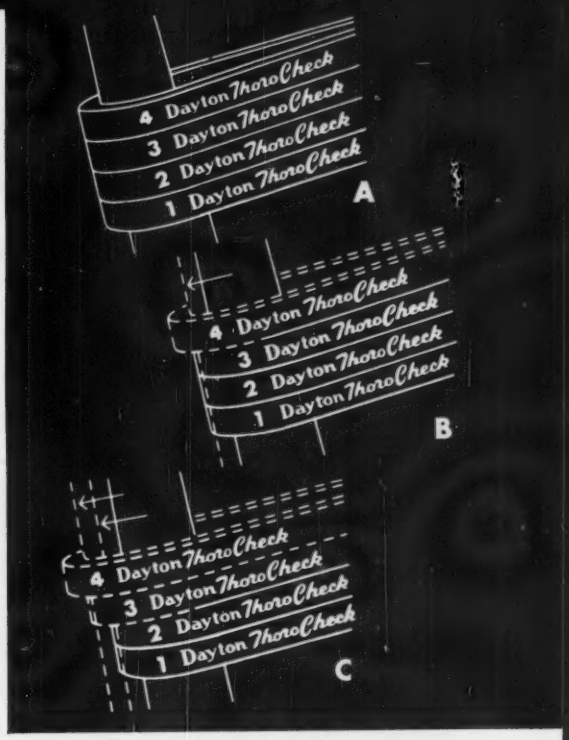
In preceding operations, for example, great strides have been made in opening and picking machinery for handling all of today's fibers. In cotton, where the



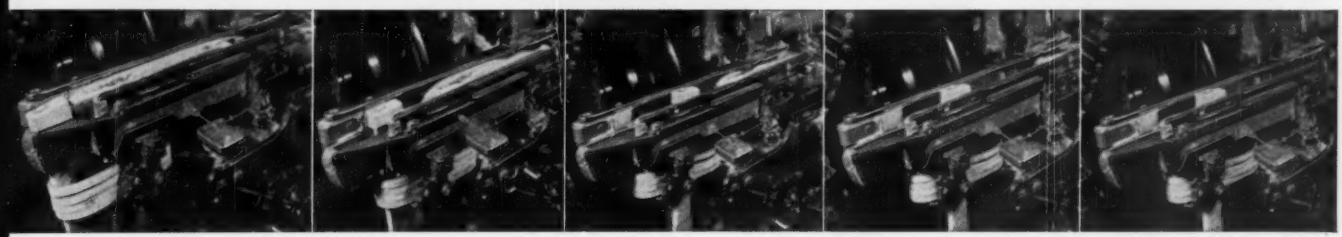
LOOM WITHOUT A SHUTTLE

—Made by Draper, this loom is an example of the new machines opening for textiles a new era of greater productivity at lower cost.





DAYTON ENDLESS THOROCHECK STRAPS OUTWEAR all others 3 to 1—save up to 50% in strap costs at leading mills. Dayton Thoro-Check Straps are for safe, *graduated* checking, keep picker in contact for perfect boxing.



MILLIONS OF EXPLOSIVE BLOWS yet the Dayton Thorobred Loop Picker stays good as new on both regular and high speed looms. The angle of the picker face is faultless, without the slightest strain on the shuttle and the precision-smooth molding of fabric and rubber prevents lint pick-up and hanging filling.

GUARD 3 WAYS AGAINST LOOM DOWNTIME

Dayton's Thorobred 3 protects heaviest shock and wear points

When you add the cost of downtime, labor, maintenance and inefficient production, you find that the day-in, day-out dependability of Dayton's Thorobred Loop Picker, Check Straps and Lug Straps on your loom make important dollar-sense.

Ask your Dayco Representative to set up a test. Phone or write the Dayton Rubber Co., Textile Division, 401 South Carolina National Bank Bldg., Greenville, South Carolina.

SMOOTH AS HYDRAULIC ACTION, Dayton Thorobred Deluxe Lug Straps sponge shock to lengthen loom life. They absorb firmly, gently, the hammer-hammer-hammer of the picker-stick thrust that wears out ordinary Lug Straps. The reason for this extra protection is the Thorobred one-piece patented cable-cord reinforcement. No rivets, no easy-to-loosen parts . . . they're molded around a plug built right in the strap loop.

Dayton Rubber

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OVERSEAS PLANT: THE DAYTON RUBBER CO., LTD., DUNDEE, SCOTLAND

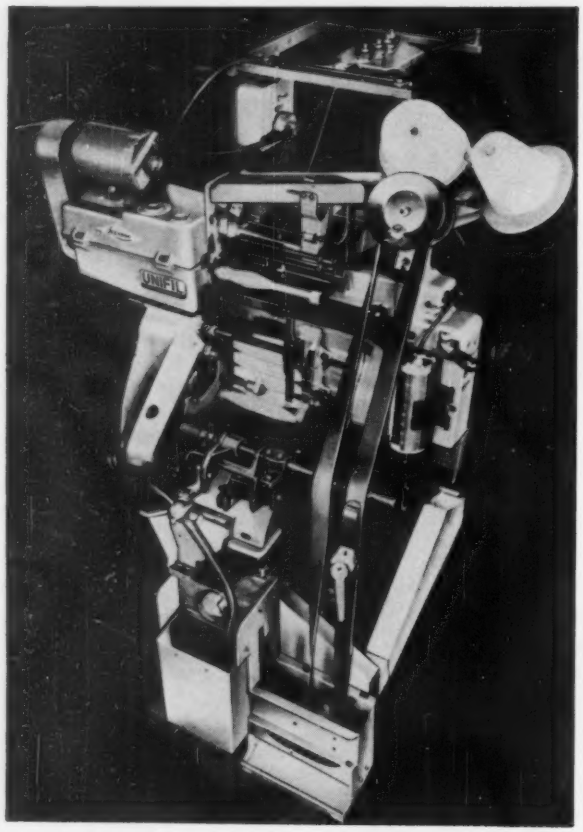
dirt content of the picked cotton shows no sign of decreasing, better methods to cope with this problem, of necessity, continue to be developed. Blending is becoming more important in the opening room.

Right now the industry is faced with a situation where 10 to 12 million bales of American cotton, each one containing on the average of 40 lbs of dirt is transported at great expense from long distances. An ideal solution would be the installation of effective cleaning machinery in the gins so that the bales contain clean cotton only.

Picker production has been improved to give better quality laps with greater yardage. There is new interest in carding as, for example, the granular card, details of which were made available to the mills only a year ago. In drawing, the tendency seems to be further increases in front roll speeds from the present range of 400 feet a minute.

There is a growing trend toward the use of combed cotton as against carded yarn production. This results in the upgrading of lower grade staples. The past decade has seen comber production rise almost 100 per cent, from 30 pounds to 60 pounds an hour. Machinery used for the preparation of laps in the comber has been entirely redesigned and improved.

Roving frame packages have continued to increase along with the general speed of the frame. The present 14" by 6½" package is now considered the practical maximum size because of restrictive problems involved on the spinning frame, but from a mechanical point of view it would be perfectly feasible to make roving frames which would produce packages as large as 20" x 10" that might contain 10 pounds of roving.



LOOM WINDER—Another machine typical of the new textile era of greater automation. Made by Leesona Corp., this Unifil loom winder winds quills on the loom, ends need for separate quill winding.

But on the other hand, there is a trend, more obvious in coarse yarn production, to eliminate the roving process entirely. In this case drawing sliver passes directly to the spinning frame where it is spun with drafts of 150 to 200.

As to the spinning frame itself, it has undergone many changes in the past few years. Most notable is the narrowing down in width from 39" to 27" for a big saving in floor space. Speeds have increased about 30% and the use of large packages made up with 12" traverses and 3½" rings have become more and more common.

One of the most conspicuous changes is the creel. It now consists of widely spaced rods from which the bobbins are suspended in special holders. The creel is entirely open, making all parts accessible to the air currents blown through it by moving overhead cleaners. The new type creel requires little or no cleaning by the operator and the bobbins are handled in far less time.

Cutting Down on Fly

Pneumatic waste removal or broken end collector systems are fast becoming an integral accessory in spinning. In connection with the cleaning elements in and around the drafting systems, the scavenger roll formerly used to clean lint or fibers from the bottom front roll has disappeared and the flat board clearers used for the two middle and back roll lines or all three lines have been replaced by one or two lines of revolving clearers. In many mills, the overhead cleaning system eliminates the necessity for the back line of clearers on the top rolls.

Today warp packages are being made with aluminum sleeve type spindles instead of wood sleeves. Plain bearing spindles gave way ten years ago to oil impregnated metal type bearing designs and now most of these have been supplanted by antifriction type spindles. The modern spindle is in a great many ways a work of art compared with its predecessor. It will stand a considerable amount of abuse and continue to run true and in balance.

Better Spinning

Antifriction bearings, besides their widespread use in spindles, are applied to tape tension pulleys, ring rail lifting rod truck rolls and to the camshaft.

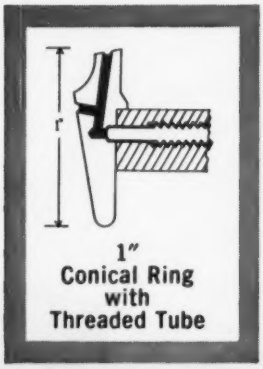
Spinning rings are now made of specially made alloy steel designed to permit higher speeds than could be run 10 years ago. Improvement in ring manufacture and metallurgy have resulted in shorter breaking-in periods for the rings and has reduced the number of ends down.

Today's spinning frames are becoming much more versatile and it has been the aim for some time, of course, to have a "universal" frame capable of handling every type and length of staple. One of the big developments in recent years is specialized drafting systems for processing fibers from 3" up to 9" and longer.

Both the wool and worsted card has been vastly improved and the movement toward the use of fewer processes in making worsted yarns continues. Machinery for handling blended yarns in particular is among the more important requirements in the woolen and worsted mills.

The entire concept of filling winding is undergoing a complete change. Since the introduction of loom winding some ten years ago, mills have given this revolutionary method of filling preparation a close look, and, within the past few years, installations of loom winding equipment have been at a remarkably

(Continued on Page 62)



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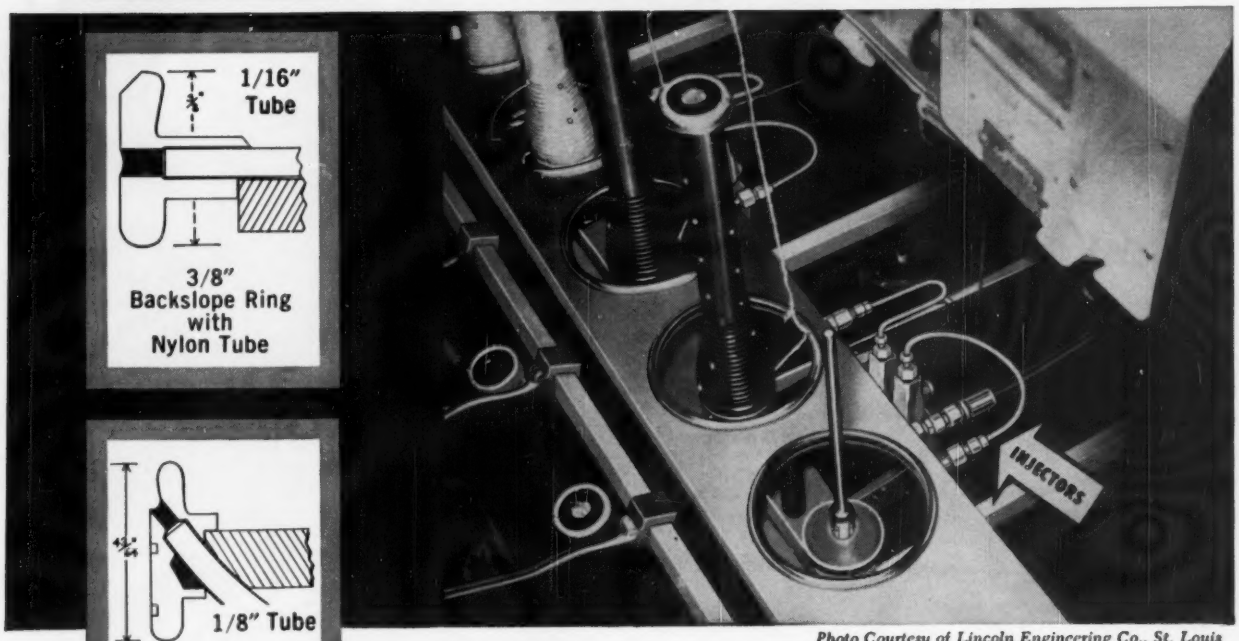

Photo Courtesy of Lincoln Engineering Co., St. Louis

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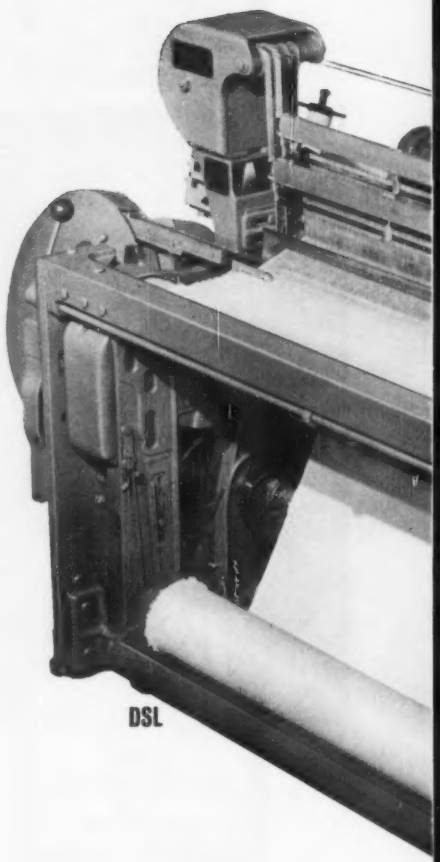

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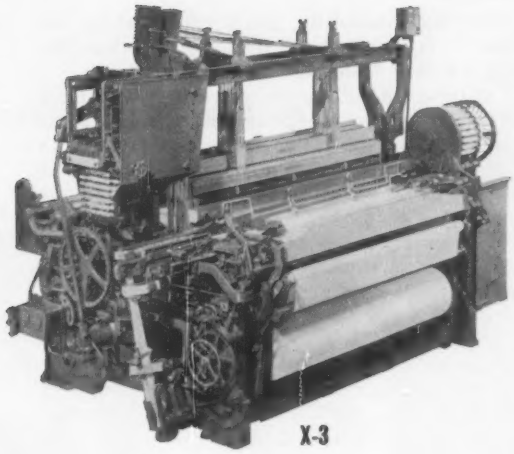

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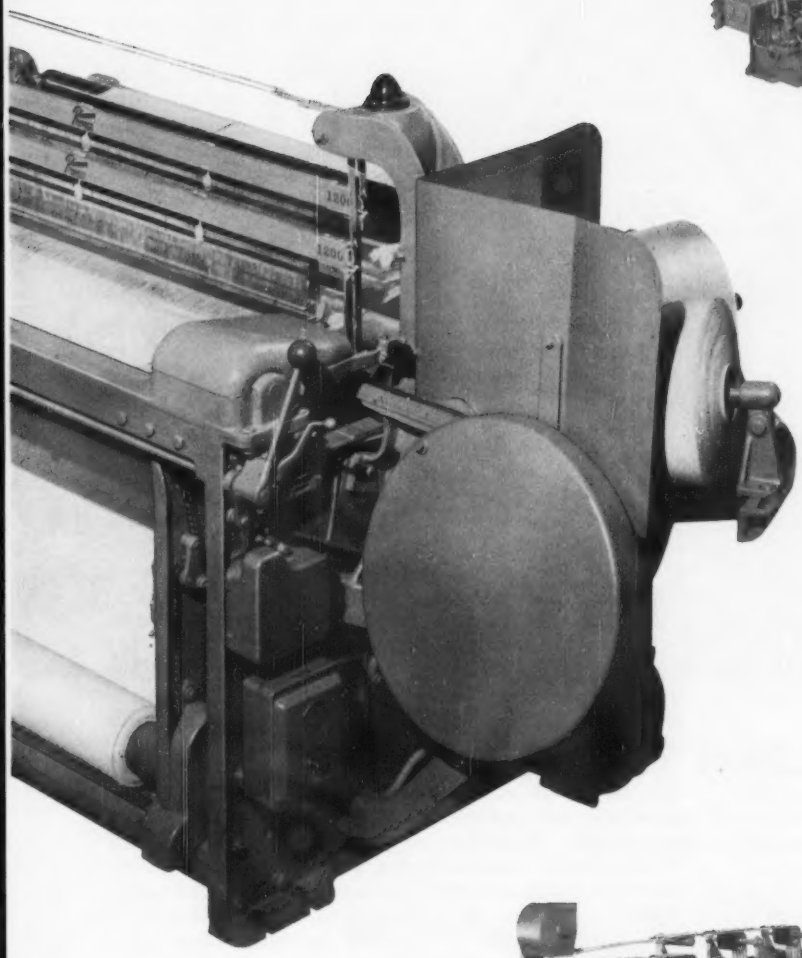
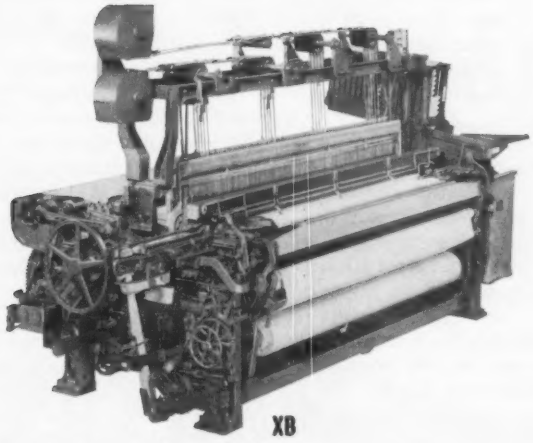




XB

Textile Machinery

(Continued from Page 58)

high rate. With loom winding, the preparation of the filling bobbin is done right on the loom so that the entire filling winding area can be eliminated.

Another system of filling preparation which is gaining attention is the use of modern high speed quillers which make specially prepared bobbins to work in an automatic filling magazine which sits right on the loom and which does away with the conventional battery.

The trend in twisting has been to larger packages, higher speeds and narrower frames. This is also true of winding and warping where higher speeds and the largest practical packages are continually being sought. Interest in various types and sizes of packages from the different winders has become keener in the past few years with the advent of the shuttleless loom as well as the loom winder. It is evident that mills are going to demand an economical yarn package for the creel which will work to best advantage on the loom.

Shuttleless weaving, which got its start in this country some years ago in the woolen and worsted industry, has been given tremendous impetus in the past two years with a brand new type of shuttleless loom for the cotton and spun rayon mill. This is one of the most dramatic recent developments and is bound to have an important effect on the industry in general. Electric controls have made "push-button" looms out of many types of bobbin-charging looms.

The textile industry is interested in increasing package sizes everywhere throughout the mill and also in increasing production. For all the processes used in manufacturing yarns, for example, it is now possible to use package sizes much larger or containing more net weight than was ever possible before. In fact there are so many choices available that it becomes important to determine which package size can be used most profitably when all of the factors involved are considered.

Today many modern textile machines are producing from two to four times as much as the older equipment still in use in some mills. It is not improbable that machinery rate of yield three or four years from now will be even higher. Consequently the obsolescence rate for the old machinery will become even more critical.

But increased productivity will bring about many related problems in supply packages and delivery packages for all machines affected. To meet the increased output and greater supply requirements for each machine it is certain that attention must be given to more automatic controls, automatic doffing and electronic devices for the control of stock passing through the machine.

Without doubt the present textile processing systems can and will be continually improved. With everyone becoming increasingly aware of the advantages of concentrated research, there is the ever present and exciting possibility of revolutionary change. ■

Worsted System Machines

(Continued from Page 35)

tronically controlled stop motions with indicator lights that signal the location of the stoppage; extra large ball or can delivery, and simple changing of draft and pressures. Safe static eliminators are provided.

The ParaDrafter with AutoEvener is a single head machine with wide 8" pin strips and faller bars, 88 fallers per head at .354 inch pitch, permitting entering slivers up to 3500 grains per yard and faller drops of 1200 per minute. Drafts range from 5 to 15, and delivery is up to 270 pounds per hour net production. The creel accepts up to 12 cans or balls or any combination, and delivery can be to cans of up to 24 x 48 inches or to balls up to 24 inch diameter and 18 inch width weighing 26 pounds. The ParaDrafter can also be supplied without the AutoEvener in either single, bicoil, dual or quad delivery.

The AutoEvener, sold only in combination with the single head ParaDrafter, automatically corrects entering sliver weight to within plus or minus 10% and delivered output sliver weight to within plus or minus 1%. It corrects for both long and short term variations. It features mechanical and electrical operation of the measuring, delay and variation units.

Roberts-Tematex ParaBlenders, of rugged construction, feature melange blending of a high number of slivers and a net production of 400 to 500 pounds per hour. They combine two ParaDrafter heads. Individual ball delivery to each head permits the machines to be used as two parallel ParaDrafters. They incorporate an arrangement for combining and sandwich blending both slivers being fed to the heads onto a center ball delivery. The center ball receives pressure spray oiling.

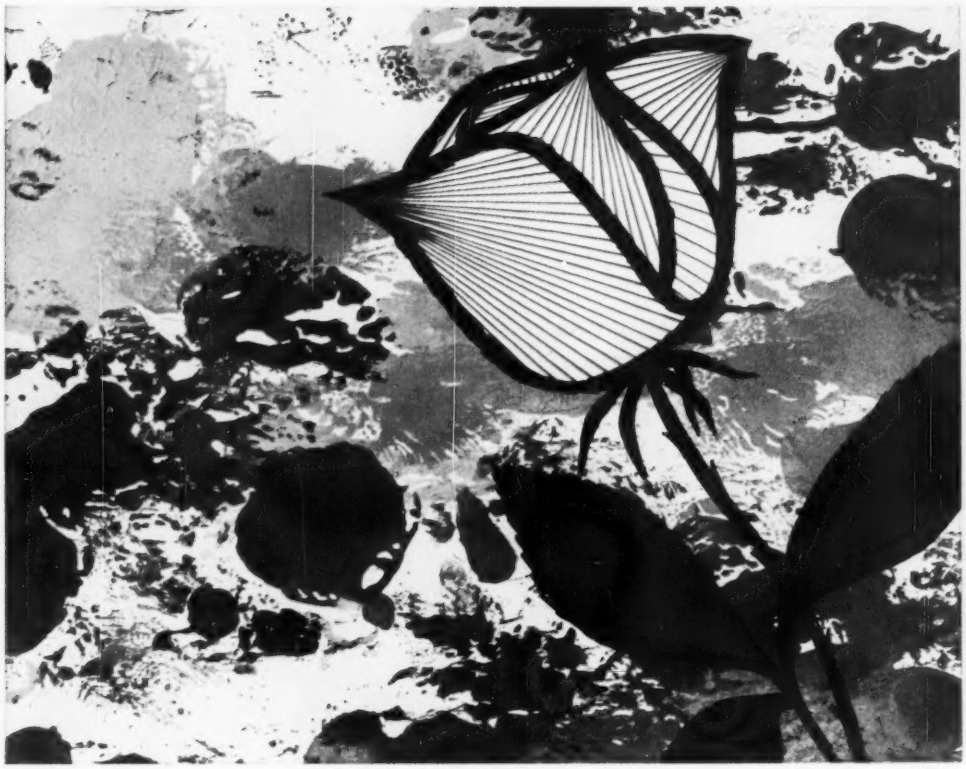
Also to be demonstrated at the American Textile Machinery Exhibition—International, May 23 to 27 at Atlantic City will be three Arrow high-speed, ball-bearing spinning frames, Pomeranz said. The three spinning frames have been refined and streamlined, he noted, although their basic design remains similar to the more than 700 Arrow frames which have been produced since 1956.

At the show, an Arrow M-1 frame will be running various cotton and synthetic yarns to illustrate high speed and versatility for a wide variety of cotton system yarns. Also running will be the new Arrow WM-1 frame, demonstrated for the first time. The third Arrow frame demonstrated will be the model WM-2, a 36-inch worsted system machine said to be especially suitable for coarser knitting yarns of a wide variety of synthetic fibers and wool.

Pomeranz revealed that Roberts had received a contract in excess of $600,000 from J. P. Stevens & Co. for new spinning machinery to be installed at Stevens' Whitmire, S.C., plant. The contract calls for 50 Arrow M-1 frames each with 320 spindles and 45 feet long. They will be used to spin combed cotton yarns in counts ranging from 60s to 100s.

This new Stevens' contract, he said, is in addition to an earlier contract by which Stevens agreed to buy 40 of the Roberts' new Arrow WM-1 spinning machines, totaling more than 10,000 spindles at a cost of $650,000. Intended for spinning worsted and long fiber yarns, the new machines are only 25 inches wide and are said to permit a 25% increase in production speeds and produce more even yarns at lower cost in larger packages. Deliveries of the new machines are already under way, Pomeranz stated. ■

PUTNAM PRODUCTS FOR THE TEXTILE INDUSTRY



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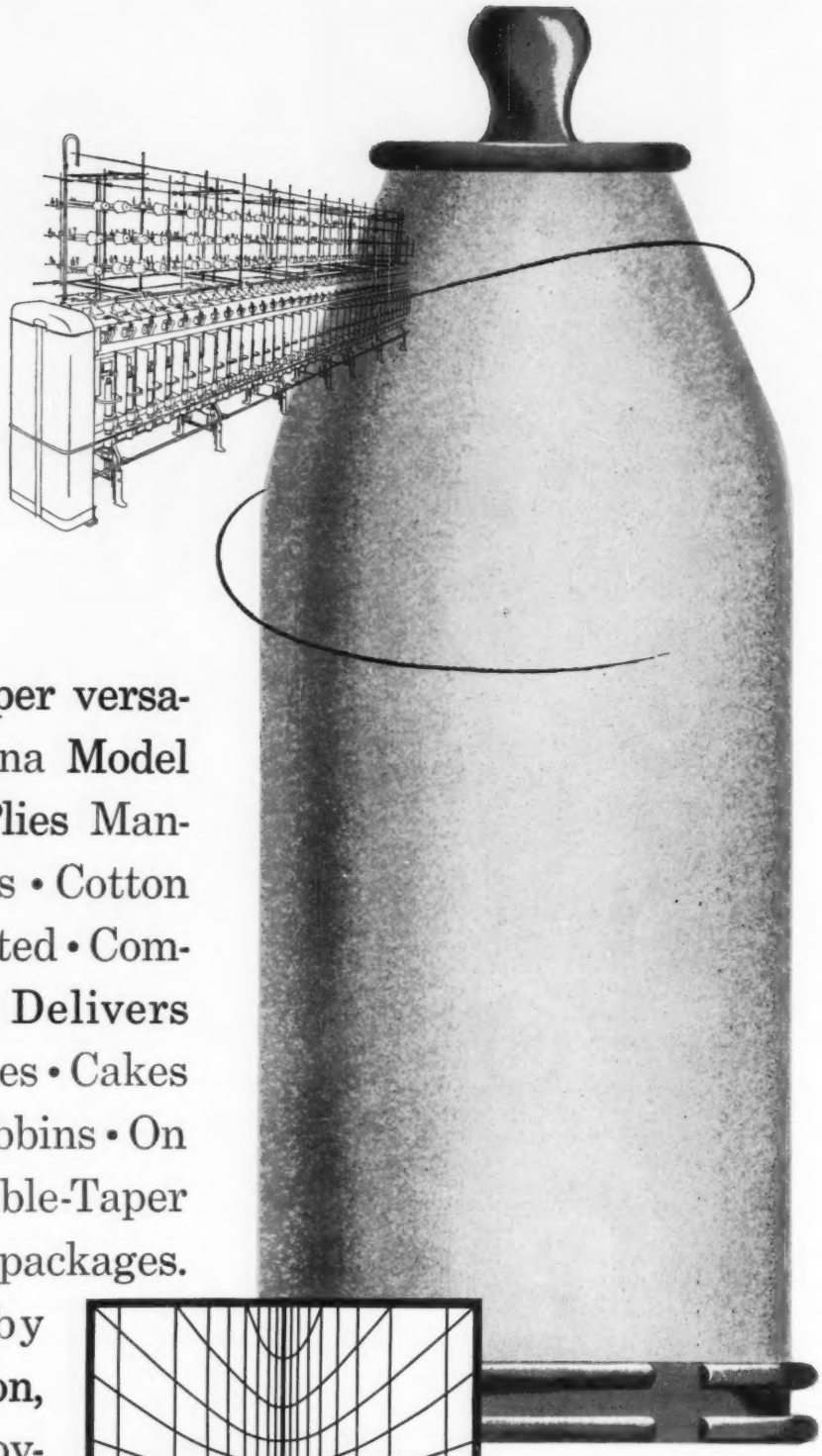

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LEESONA

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Burlington's Head Man

(Continued from Page 34)

the Spencers are deeply rooted. Spencer Love's maternal grandmother, Cornelia Phillips Spencer, to cite one connection of his family with North Carolina, was famous in the state as a pioneer in the cause of women's education and emancipation, and is still remembered and written about in the Piedmont.

Love grew up in Cambridge, attending the Cambridge Latin School, an institution highly regarded for the rigorous standards of its teaching, and imparting, as he gratefully remembers, a sound, old-fashioned education. With its only income a professor's salary—much less in real dollars in those days than it would be today in spite of inflation-the family of Professor Love "lived sparsely" in his son Spencer's words. Looking back on his boyhood today, Love reflects that there was something in his environment that implanted deeply in him a persistent ambition to better himself. Driving ambition of this kind, he thinks, is often found in the sons of school teachers and preachers brought up in an environment of plain living and high thinking. Perhaps it is the moral earnestness of the family background coming out in the son in an energy of ambition to succeed in this world.

From the Latin School, Spencer Love went inevitably to Harvard College. As a "day student" living close to the campus in his father's house, he concentrated hard on his books, removed by temperament as well as lack of money from the expensive camaraderie of the fraternity and prep school crowd. A good if somewhat obscure student, Love with characteristic celerity finished the four year undergraduate course in three years. He found time nevertheless to win in the face of strenuous competition, a place on the management staff of the track team. One of his tasks as a business man for the sprinters and leapers, he remembers with mild pride, was the acquisition of land and the setting up of a cross-country course at Belmont not far from Cambridge. The course was used for many years, and thus proved to be a soundly executed piece of business for the track team —evidence that as a manager of complex enterprises requiring good business judgment, undergraduate Love was a man who showed promise.

From College to Khaki

Love also diverted himself from his studies by serving as an editor of Harvard's student newspaper, the *Crimson*. He did well as a campus newsman showing a highly competitive flair for outsmarting his fellow reporters by digging up scoops and writing them in the plain English he still uses with great effectiveness in his frequent public speeches. It is worthy of note, too, that the *Crimson* provided Love with one of his first paid jobs. He read proof for the paper for 25¢ an hour.

From Harvard College, once he had taken his bachelor's degree, he went on to a year at the Harvard School of Business, breaking off his studies to enter the Army in 1917. At Fort Dix, where he was sent for basic training, the Army was overwhelmed with recruits and the problems of how to set up a workable military administration to handle them. The officers in charge lost no time in availing themselves of the services of the new soldier whose great talent showed itself to be an ability to organize and administer, and who was willing to throw himself without regard to long hours and fatigue into these urgent tasks.

HOW TO STAY YOUNG—a lifelong tennis player, Love is shown here last March in a game at his winter home in Palm Beach.

His administrative abilities and willingness to work brought him in time to the position of Adjutant of the 78th Division when it went overseas to France. Before the war was over, he held a major's rank and brought home with him to civilian life a citation by General Pershing for "exceptionally meritorious and conspicuous services."

Out of the Army and back in Boston in 1919, he looked around for a suitable opening in the business world, eyeing with particular interest the field of retailing. But when three months had passed with no acceptable offers either from department stores or other Boston business houses, he went south to see if there were job opportunities in Gastonia.

It so happened that Love's grandfather and great uncle had been in the textile business in the Gastonia area. Helped by this family association with local textile manufacturing, Spencer Love was offered a job as a payroll clerk of the Gastonia Cotton Mills, a worn-out plant manufacturing a line of fabrics no better or worse than that turned out by so many mills in those years in the Piedmont.

What his duties were and the kind of outfit Gastonia Cotton Mills was in 1919, was recalled by Love in a talk many years later. "When I started working in a mill office in Gastonia," he said, "there was a bookkeeper who did all the accounting, shipping, and payroll work—we paid in silver dollars. He also bought supplies, watched the bank account, handled collections—in fact did everything that now comes through many offices and service departments. A girl came in part-time to help him and take the few letters that had to be written. These were the only people in the office outside of the treasurer who ran

the company and who spent most of his time in New York and Philadelphia. Yet operations were not simple because there were 10,000 spindles on several different counts and two grades of cotton, and yarn thus spun was sold to the trade in several put-ups; and along with our sales yarn we had 200 looms making various novelty fabrics. Yet when I went in that office there was very little for me to do unless the bookkeeper went home and turned the work over to me; I imagine one reason that spurred me into making progress was that I wanted to find more to do."

That something more Love found to do before many months had passed was to buy the mill and run it himself. "I wanted a mill of my own to run," he says in recollection. The owners put a price of $250,000 on the property and Love's personal resources amounted to $3,000 saved from his army wages. To bridge the vast gap between these sums, Love persuaded the owners of Gastonia to take $80,000 in cash with the balance to be paid in two or three years out of earnings. To obtain the needed cash payment, Love with his father co-signing the notes, obtained a loan from a commission house that had formerly sold the mill's output and wanted the account back again. The balance of $15,000 was borrowed from a local bank.

Love Discovers Rayon

Plunged thus at the age of 23 into the textile business as the man solely responsible for the survival of a $250,000 mill, Love learned fast. In no time at all he realized that the mill he had acquired was a typical marginal producer of the chaotic textile industry of those postwar years. Its machinery was obsolete, and it was apparent that such a broken-down outfit could only make money in boom times. Fortunately, the postwar demand for cotton goods lasted long enough for him and his associates to pay off the balance of the mill's purchase price. In 1923, taking advantage of a profitable offer for the mill's real estate, Love sold the plant for $200,000, moved its machinery to Burlington, a small town about 150 miles to the north which like so many small towns, was feverishly eager to encourage new businesses to settle there.

More or less on schedule, as predicted in the Burlington News, the new cotton factory got under way and struggled hard to keep its head above water. As Spencer Love remembers, the next five or six years were a difficult time of painful effort to make the mill yield fabrics that could be sold to make ends meet.

What brought Burlington out of its struggle to keep alive as a marginal cotton mill competing with so many other marginal mills was Spencer Love's encounter with rayon. It was not a sudden confrontation, but a slow awareness that fabrics made with the new shiny generally despised artificial fiber had a strong appeal to consumers. Burlington's first taste of success came with bedspreads woven with cotton warps and brassy rayon filling yarns to give them a harsh and improbable glitter which housewives in those days found appealing.

Noting that rayon goods sold profitably, Love steered Burlington into increased production of a growing range of rayon dress fabrics. With a prescience rare among textile men in those days, Love saw that rayon, the first of the manmade fibers, was the rising groundswell of a great wave of the future. As fast as he could he manuevered Burlington to splash ahead unhesitatingly on the crest of that wave.

As earnings mounted, Love resolutely ploughed them back into the purchase of new plants and equipment so that by 1937, the company had 30 weaving plants and sales of $27 million. In that year, Love pulled together his many subsidiary corporations into the parent company, and feeling that time was opportune for more orthodox methods of financing, had Burlington offer its stock to the public. The first issue was oversubscribed and Burlington's name went up on the big board at the New York Stock Exchange. The company thus emerged from its origins as an obscure textile firm in North Carolina into the national business arena. It was now a big outfit destined to grow bigger.

In the following years, the principle of growth and more growth which was the very essence of Burlington and the cardinal, undeviating business rule of Spencer Love continued to dominate the activities of the company. In the late 1930's, breaking away from its hitherto primary characteristic as a weaver, Burlington acquired hosiery plants, becoming one of the largest knitters in this field. By 1941, when the United States entered the war, Burlington had 43 weaving and knitting plants in three states and a volume of $63 million.

Although the intervening years were not lacking in their acquisitions, the next really dramatic period in Burlington's growth began with the 1950's. Rayon, the foundation stone of Burlington's structure, alarmingly showed signs of losing its strength. Flat filament goods, especially the once tremendously popular crepes, lost their appeal for women. Burlington's heavy concentration on rayon, Love realized, was a weakness that could prove fatal. Naked survival, to say nothing of expanding prosperity for the company, depended upon speedy diversification. And so for Spencer Love and Burlington the watchword of the hour was: "Diversify!"

Moves into Cotton, Wool

In a series of rapid moves, Burlington dazzled the textile industry by plunging into cottons by acquiring Cramerton Mills, and its selling house of Galey & Lord, Mooresville Mills, Ely & Walker, and the Henrietta-Martel Mill group. Not stopping with cotton, Burlington pushed into wool fabrics by taking over Pacific Mills, Peerless Woolen Mills, and Raeford Worsted Mill. Then in the last few years, diversifying still further, Burlington acquired Hess, Goldsmith, weaver of glass fiber fabrics; Sidney Blumenthal, respected producer of pile cloths; Princeton Knitting Mills, a pace-setting knitter of pile and flat goods; Charm Tred Mills, a small producer of floor coverings, and then finally the big recent deal to take over James Lees, major producer of carpets.

A man with so great an ability to stimulate growth and change for the company he created, must himself have the ability to change and grow with the forces he sets in motion. And so it has been for Spencer Love. The working millman who in the early days of Burlington supervised production and sales at first hand, who himself entered incoming orders in the books and took the day's receipts down to the bank, has given way to the man who manages without visible strain a corporation now standing high among the country's largest manufacturing enterprises. He accomplishes this by concentrating on the big and basic issues of Burlington's operation.

For Love, the demands of Burlington's management come first. But these demands are by no means his only major interest. All during his career, he has

(Continued on Page 68)

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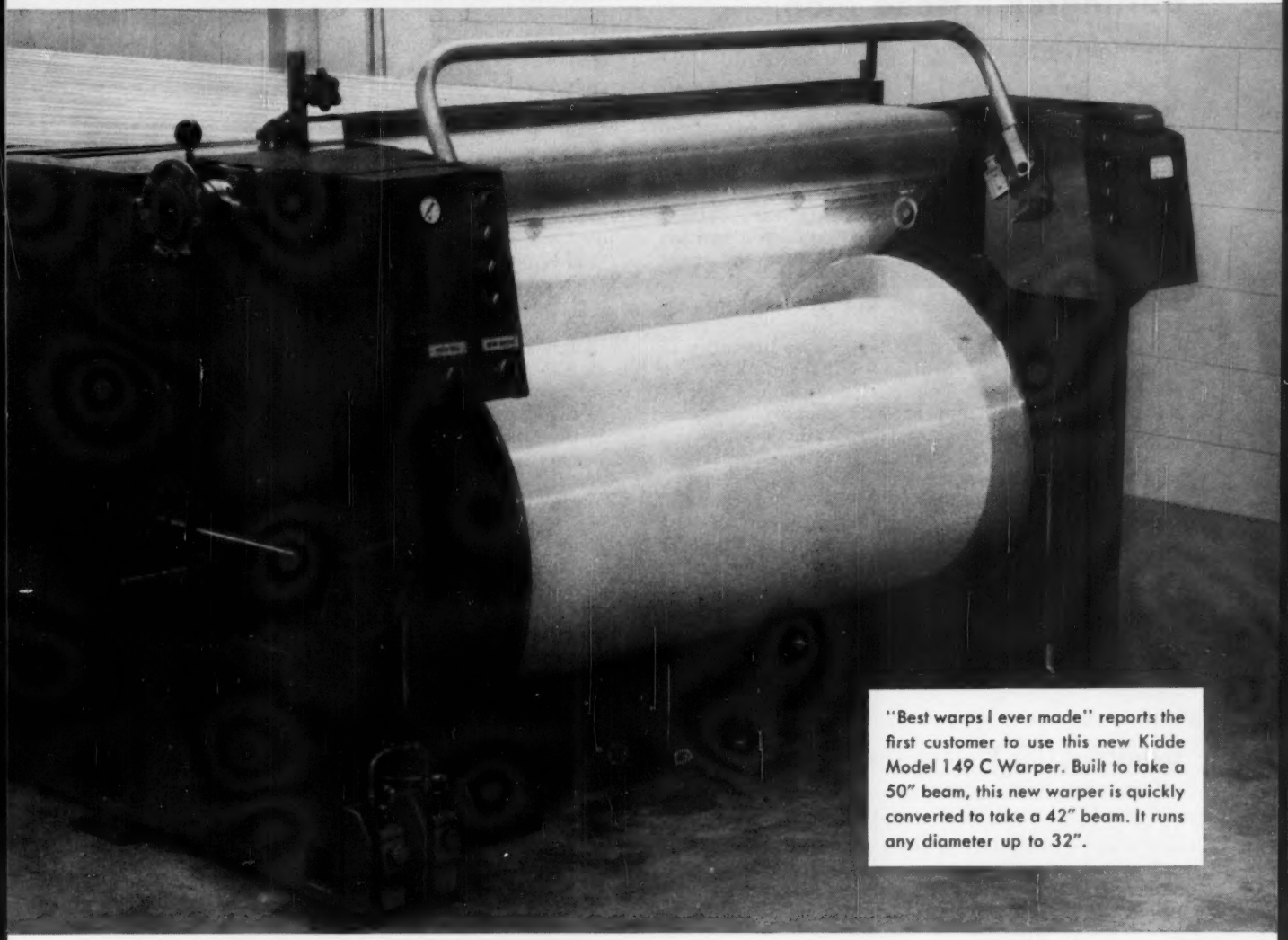


"Best warps I ever made" reports the first customer to use this new Kidde Model 149 C Warper. Built to take a 50" beam, this new warper is quickly converted to take a 42" beam. It runs any diameter up to 32".

Every KIDDE WARPER gives you the smoothest, most even warp beams in the business

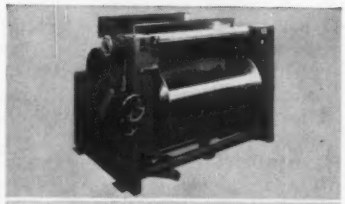
Kidde warpers are *engineered* to give you smoothness and evenness in yarn buildup that's unmatched by any other machines you can buy. Here are a couple of reasons why:

Instead of just one cylinder on the compression roller, Kidde gives you *two* — hydraulically operated — one on either end of the roller, for perfectly balanced pressure that eliminates bounce and chatter. And powerful brakes stop the beam within one revolution and automatically adjust themselves. What's more, the brakes on the measuring roll, compression roller and beam are electronically synchronized so yarn is never scuffed.

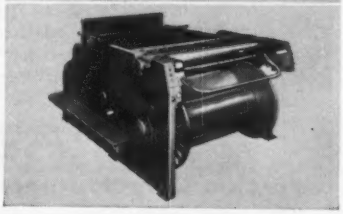
When used with a Kidde accumulator, both warper and accumulator are electrically synchronized. This maintains even tension when yarn must be backed off to pick up a lost end.

These are only a few major advantages of Kidde warpers. Get the full story of their trouble-free operation by contacting:

This Kidde warper handles beams up to 21" in diameter, made in three sizes: 21, 42 or 50 inches long. Every part is easily accessible. Regardless of size, any Kidde warper can be doffed automatically — even by a girl. Hydraulics do the work, at the touch of a lever.



Kidde high speed cotton system warper handles 54" section beams with flange diameters up to 36". Has all the quality features of other Kidde warpers with speeds up to 1,000 YPM.



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Kidde TEXTILE MACHINERY CORPORATION — BLOOMFIELD, NEW JERSEY

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Burlington's Head Man

(Continued from Page 66)

demonstrated in action a great sense of dedication to public affairs, especially in the field of education. During World Was II, he served in Washington as a hard-working director of the textile division of the War Production Board. Currently he is an active member of President Eisenhower's Business Advisory Council and he is a trustee of the Committee on Economic Development. On the whole, he gives about a day a week to these and other affairs devoted to national and community good. In educational matters he is especially active. Under his encouragement, Burlington has distinguished itself in its liberality of gifts to educational institutions. In fact, data from a recent survey by the Council for Financial Aid to Education indicates that in such support the company ranks third among U.S. corporations.

Today Love regards himself as a kind of super-super personnel manager, recruiting and steering a large force of capable and hard-working executives. To find the right man for a job that needs to be done and see that he has the encouragement and all other means to do it, is Love's major assignment. Some idea of the extent of this task can be had from the fact that Burlington is organized into some 50 "profit centers"—autonomous areas of operation headed by executives whose progress is measured in separate profit and loss statements, and who have all the authority to make the decisions needed to keep these profit centers turning in profits. These independent areas of Burlington are paralleled by 34 production and marketing divisions with their necessary complement of talented managers—virtually all of them dominant personalities, widely varied in their temperaments and ways of accomplishing their work.

But even a strict limitation to only the most crucial management matters causes Love to carry a burden of work that seems unenviable and even incredible to ordinary men who like a comfortable five day a week, nine-to-five life. Although he accomplishes prodigies of work, keeping half a dozen secretaries and executive assistants on the jump, he gives the impression that his work is zestful. Nor does he show any sign of slowing up or any interest, even though he is 64 this year, in retiring. The truth of the matter is that James Spencer Love is a man who achieves his astonishing results because he responds to mysterious inner forces, laws of personality that in the final word, escape analysis. His extraordinary personality as energy-packed and efficient as a compressed steel spring, moves to a different time, a clock not known to ordinary men. What has kept him driving forward all these years is not a craving for wealth—his personal fortune estimated a $6 million is, in these days of a cheapening dollar, a relatively modest one; nor is it the urge for power over other men. A guess is that the force pushing Love unceasingly is an urge to accomplish, to create, to erect a monument of personal achievement still higher and higher.

Industrial Ups Prolene Output

Industrial Rayon Corp. has started limited commercial production of polypropylene fiber and tow. To be marketed as "Prolene," the fiber is being offered in 2, 3 and 6 deniers at 90 cents a pound. More deniers will be made available later, according to F. L. Bissinger, vice president and general manager. Prolene's principal applications are in industrial filter cloths and cordage, with some usage also in tarpaulins.

Prolene is lighter in weight than other synthetic fibers and possesses high strength and outstanding resistance to abrasion. It also is reported to be unaffected by water and common chemicals. The light weight of Prolene will enable greater coverage, pound for pound, than other synthetic fibers and will permit more economical manufacture of many products, it was stated.

Plymouth Cordage Co., which introduced Prolene in rope, has reported that its "light weight, high strength, outstanding chemical resistance and excellent durability recommend the use of ropes made from Prolene for many purposes in shipping operations, industrial applications and in yachting", according to Bissinger.

Industrial Rayon's commercial manufacture of Prolene staple and tow at its Covington, Va., plant follows more than a year of pilot plant operations in Cleveland. Limited quantities of Prolene continuous filament yarns are presently being produced at the pilot plant. *For more information write the editors.*

Caprolan Carpets Approved

Two new carpets made of Allied Chemical Corp.'s textured Caprolan nylon have been granted Allied's "Certified for Performance" label. Both are custom carpets manufactured by Carter Brothers, Chattanooga, Tenn. The carpets are two-toned fabrics tradenamed respectively "Radiant", a loop pile and "Crest", a deep cut pile.

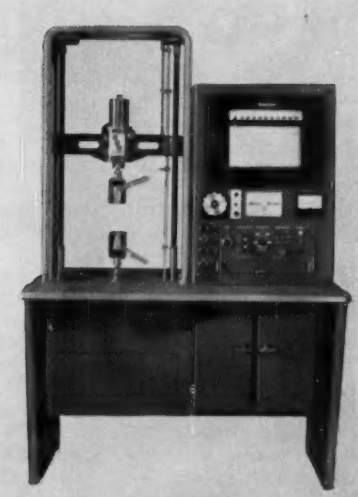
The carpets are available in a wide color range of two-tone combinations. From a basic chart of 13 colors plus white, 32 combinations have been suggested by the manufacturer. In addition, customers can arrange their own combinations of any two of the stock colors, making the variations almost limitless.

Meanwhile, in support of consumer acceptance of Caprolan carpets, Allied Chemical continued with its promotional program. In Charlotte, N. C., recently an all-day radio "spectacular" was staged to promote Callaway Mills' new Caprolan "Captivation" carpets. Listeners to Charlotte's radio station WAYS heard spot advertising, and interviews throughout the day devoted to Captivation carpets. Executives of Allied, Chemical, Belk Brothers and Callaway Mills participated.

In another event held at Queens College, in Charlotte, June Mohler, home decorating consultant for Allied Chemical, spoke before an audience of members and guests of the college's Alumnae Association. She described how textured Caprolan filament nylon has brought high style decorator colors in carpets within the budget of the average home maker.

AviSun Plans Expansion

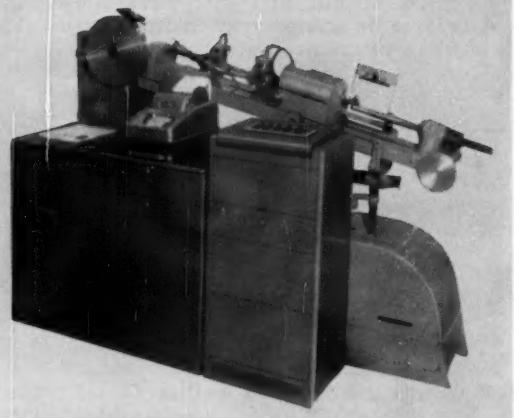
AviSun Corp. has awarded the engineering contract for a 100 million pound-a-year polypropylene plant to Bechtel Corp. Engineering plans call for the plant to be located in the Eastern part of the United States. AviSun was created as a joint venture by American Viscose Corp. and Sun Oil Co. It began operating a 20 million pound-a-year polypropylene plant at Port Reading, N. J., in September, 1959; started up a 10 million pound-a-year polypropylene film plant at New Castle, Del., last November, and a polypropylene fiber pilot plant, also at New Castle, in February of this year.



NEW PUSH-BUTTON ACCURACY FOR TENSILE TESTING!

Scott Model CRE Constant-Rate-of-Extension Tester — with its super-sensitive electronic weighing system and convenient push-button controls — takes all the work and weight-handling out of tensile, tear, seam construction, adhesion, and other physical tests in lab or production work. Convenient variability in crosshead speeds (400:1), and changes in chart speeds and test capacities are accomplished easily and positively on the centralized control panel. Model CRE provides a wide selection of test load ranges to 1000 lbs. . . . and wide controllability of crosshead speed versus recorder chart speed providing ample magnification for practically all materials. The unique visual time-to-break signal is an important built-in feature of Scott Model CRE. This tester makes use of all Scott clamps and fixtures (now incorporating a new quick-change clamp-locking design) to meet ASTM, ISO, and Industry Test Methods.

SCOTT TESTERS FOR TEXTILES



"SCOTAMATIC" MEANS AUTOMATIC CORD TESTING!

Another major Scott advance in testing tensile strength of textile yarns and cords, the Model IP-4 "Scotamatic" permits *fully automatic and unattended* testing and recording . . . for greatly reduced operating costs. Developed by the Engineering Division of Courtaulds Ltd., Coventry, England, this tester includes positive-acting controls plus electronic digital computing devices which permit continuous tests of an entire bobbin or up to 100 samples, with test data recorded immediately and permanently on tape. Operation is simple. One operator can supervise three testers simultaneously! Features include "Tensilgram" chart for picturizing stress-strain curves, and pre-established modulus-value (usually 10# for tire cord).

WRITE FOR COMPLETE CATALOGS ON MODEL CRE . . . "SCOTAMATIC" . . . AND SCOTT CLAMPS

QUICK-CHANGE SCOTT CLAMPS AND FIXTURES . . .

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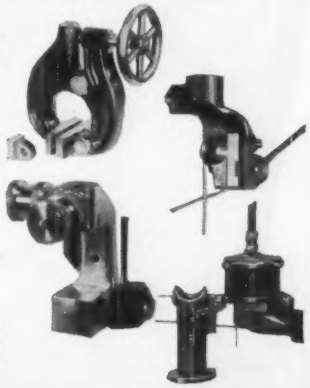
FLAT GRIP CLAMPS FOR FABRIC
Here's one of many Scott Tensile Clamps (A-1) for textiles. Scott offers eleven different styles of flat grip fabric clamps for capacities to 2000 lbs.

CALLAWAY CLAMP FOR HEAVY CORDS
Widely used and universally approved for testing yarns and cords in the lab or at production. Two sizes: capacities to 75 lbs. and 400 lbs.

FLETCHER CLAMP FOR YARN
For testing fine yarns and flat materials up to ½" wide . . . up to 20 lbs. tensile.

SPRUANCE CLAMP FOR CORD
Pneumatically actuated. Helps make cord testing more automatic and totally free from operator influence. In step with today's trend to automation!



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Machine Assignment Seminar

A series of two-day seminars on machine interference and machine assignment are scheduled to be held by Thomas F. O'Connor in Atlanta, Ga., starting May 3. O'Connor reports that his method for dealing with interference—which is defined as loss of production occuring in multi-machine assignments due to overlapping machine stoppages—have been proved by 12 years of industrial application. It uses tables of productivity factors calculated by means of the Ashcroft Formula.

The method is said to be simple and direct and is applicable to any situation in any industry where one operator is in charge of a number of semi-automatic machines subject to random stops. O'Connor has extensive experience in conducting his seminars, and employs a manual containing tables, explanations and worked examples. He provides mimeographed calculation forms and course notes. *Persons interested in attending the seminar are invited to write directly to Thomas F. O'Connor at 2830 Morgan Ave., Oakland, California.*

Du Pont's New Acrylic

Du Pont has adopted the trademark "Orlon Sayelle" for its new acrylic textile fiber introduced last October as "Orlon" 21 acrylic fiber. The newest member of the Du Pont acrylic fiber family is distinguished by its permanent corkscrew crimp.

In finished garments "Orlon Sayelle" is said to have elasticity, bulk, compressional resilience, and a loft closely akin to that of wool. Its permanent crimp is described as reversible. The fiber straightens when wet and regains its crimp as the garment dries. The energy of this recrimping action literally "works" the surface of the fabric, according to Du Pont, renewing a fresh appearance through many washings. "Orlon Sayelle" also is said to have special affiinity for dyes and the easy-care advantages for which the parent fiber is known.

In addition to knitted garments currently available for women, men, and children, hand knitting yarns are expected to be in the stores by fall. Evaluation of the contributions of "Orlon Sayelle" acrylic fiber to woven fabrics is under way.

More Caprolan Tire Yarn

Allied Chemical's National Aniline Division plans to triple its annual production of Caprolan nylon-6 yarn for automobile tires. Allied pioneered the use of nylon-6 as tire cord in competition with both rayon and conventional nylon. Nylon-6 also is being used in increasing volume by fabricators of industrial conveyor belts, marine hawsers, industrial webbings and coated tarpaulin fabrics, Allied said.

The company's intention to become a major nylon fiber supplier became evident in 1955 with the completion of its original plant at Hopewell, Va. Last year the company expanded its caprolactam monomer capacity to 60 million pounds. Caprolactam monomer is the starting material for nylon-6 fiber and plastics.

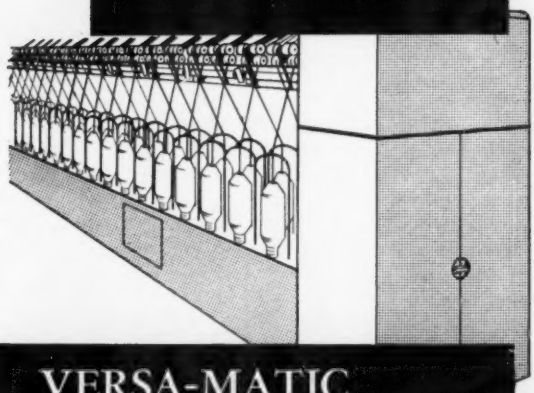
Allied, meanwhile, has selected Orange, Texas, as the site for its new high-density polyethylene plant. Expected to be completed in late 1960, it will form the first unit to the company's existing polyethylene production at Tonawanda, N. Y. Pipe produced from the company's high-density low-pressure polyethylene resin has been guaranteed by extruders up to 25 years.

The brand name of Allied's anhydrous ammonia has been changed from Barrett Brand to Allied Chemical Anhydrous Ammonia. Allied's Barrett Division first produced the product but today the firm's Nitrogen Division produces and sells anhydrous ammonia.

ROVEMATIC

an entirely new concept in spindle and flyer arrangement*. The unique design does away with heavy traversing carriage, carriage lifter mechanisms, counter balance weight and horse-head drive.

*U.S. Patent No. 2,898,729
Other patents pending



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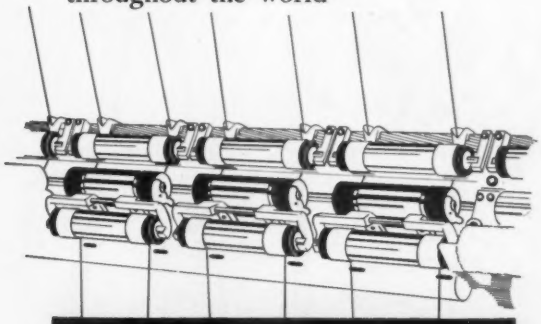
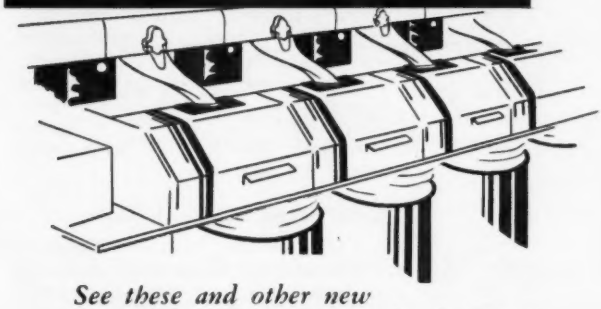


VERSA-MATIC

AUTOMATIC DRAFT CONTROL*

produces most uniform sliver ever obtained by means of electronically controlled drafting. Yarn produced from Saco-Lowell/Uster Versamatic ADC drawn sliver has highest strength, exceptional evenness and unsurpassed quality. *In the case of combed stock, only one drawing process is required instead of two.*

*Patented with other patents pending



New Model MAGNEDRAFT*

uses forces of magnetic attraction to produce required roll pressures. Eliminates anti-friction top and bottom rolls and all conventional weighting apparatus. New front top roll support allows quick "end-around" piecing. Requires no lubrication in drafting zone. Gives cleanest, most efficient operation of any spinning drafting element ever developed.

*U.S. Patent No. 2,686,940

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Garments made from "Orlon" 21—lively, resilient, with a natural, wool-like touch—take on a distinct new look of quality and elegance when good styling is coupled with superior yarn dyeing. Give your fashions the competitive edge of long-lasting beauty and sales appeal by specifying "Orlon" 21—package-dyed by Globe.

Globe does package dyeing on tubes, skein and warp dyeing, warp bleaching and sizing.

Yarns processed include cotton, worsted, linen, blend and novelty yarns, and all synthetics including Arnel®, Creslan®, Orlon®, and Zefran®.

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Globe DYE WORKS CO

Since 1865

For the DYER and FINISHER

High Temperature Dyeing

How dyes and synthetic fibers behave during high temperature dyeing treatment is discussed in recent literature issued by American Cyanamid Co. The design and construction of a new microdyeoscope at American Cyanamid has enabled the firm's scientists to study these reactions at temperatures up to 325 degrees F. American Cyanamid's findings include reports on the degrading action of various dye baths or treating bath components on wool, cotton, Orlon 42, Dynel and other fibers, and a check list of precautions necessary when dyeing at high temperatures. *For further information write the editors.*

Sandoz Polyester Dye

Foron Scarlet 3 GFL ultra-dispersed p.a.f. introduced by Sandoz is said to be the first red dye fast to light and sublimation on polyester fibers. Fastness to washing, light, perspiration and sublimation are reported outstanding on polyesters and on triacetate, for both dyeing and printing. For wool-polyester blends, the wool reserve is superior to previous offerings, Sandoz reports. *For further information write the editors.*

Stabilizes Formaldehyde

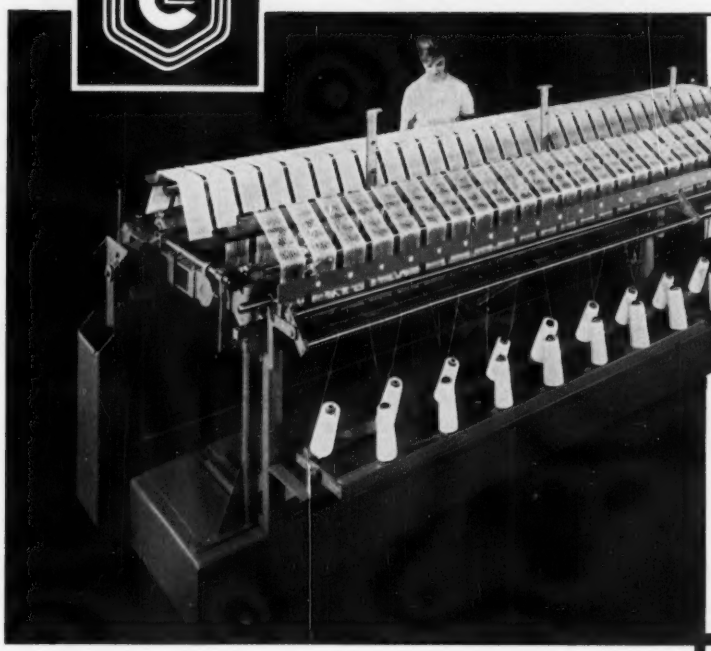
Celanese Chemical Co. has developed a new process for stabilizing formaldehyde that makes it possible to reduce storage temperatures by 15 to 20 degrees Fahrenheit. Celanese said its stabilized formaldehyde lessens the chance of precipitation, thus enabling customers to order higher concentrations; it maintains higher clarity, reduces acidity and lowers costs by reducing storage temperature requirements, and in some cases eliminates the need for methanol inhibitor. *For further information write the editors.*

Ciba Forms Pigment Unit

Ciba Co. Inc. has established a Pigments Division with administrative, sales and technical activities of the new unit located in the new building at Fair Lawn, N. J., occupied by Ciba earlier this year. P. L. Penaud has been named manager of the new division, with H. G. Osolin placed in charge of technical operations. The Pigments Division will handle a broad range of organic pigments, pigment dispersions and soluble dyes for use in the coatings, plastics and printing ink industries. *For further information write the editors.*

(Continued on Page 75)

The largest and most important crimped yarn twisting mills all over the world are using Croon & Lucke reeling machines.



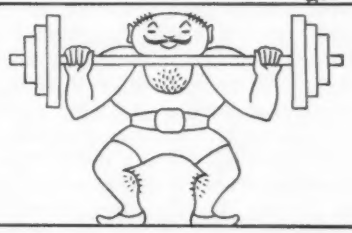
While on the front side of the machine hanks are continually manufactured, the ready-made hanks can be continually tied and doffed on the reverse side due to the change system of the swifts (revolving type).

Croon & Lucke Reeling Machines

are the only machines attaining a yarn speed of 1.000 m and more—this is important for hanks of 30.000 m in length.

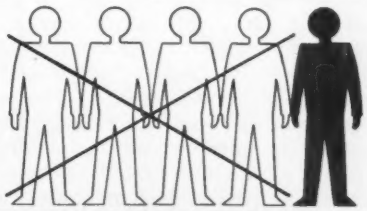
Croon & Lucke Reeling Machines

are equiped with special swifts which can sustain radial pressures of 20.000 kgs—this is important for crimped yarn hanks of up to 500 grs.



Croon & Lucke Reeling Machines

are the only reeling machines which by changing the swift (revolving or lateral change) save labour costs to an extent unknown hitherto—this is important these days, as labour is short and competition strong.



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Millmen eager to modernize can get help from factors

Many ways available for financing purchase of new, better machinery

By the Editors

MILL MANAGEMENT people, their appetites sharpened by seeing the vast display of new textile machinery at Atlantic City this month, will be glad to know that purchase of new equipment is being made easier and easier. In these days of increasingly flexible and intelligent credit facilities, highly productive new machines can be acquired in ways that permit their earnings to pay for them. In opening new paths for mills to get the modern machinery they need to keep competitive, factoring and industrial finance companies are among the pacesetters.

Because factors have long looked to textile manufacturing for an important part of their business volume, these banking firms have a long-established, intimate knowledge of the industry as well as a strong incentive to help the industry achieve greater prosperity. For these reasons, factors have given much thought and effort to developing ways to help mills acquire new equipment.

Some factoring firms have time sales and leasing departments. Others arrange loans for their clients to help them buy new machinery while at the same time offering them advice on the most advantageous plan, in the light of a client's special conditions, that the client can follow to pay for the new machinery. In general, factoring firms servicing textile accounts are anxious to have their clients keep their plants tautly modern. They are as keenly aware as any millman that improvements in textile machinery are coming these days thick and fast. Executives on the staffs of factoring firms, many of them men with mill backgrounds, know that with every year yarn processing machinery, weaving and knitting equipment, are running at higher speeds, yielding more yarn and fabric with fewer defects and at lower cost.

As much as any textile sales executive in New York's teeming midtown, these men in factoring offices know that today the fabric market is fiercely competitive and that mills which fall behind in productive efficiency will find it harder and harder to earn profits or even keep alive. Hence they are strongly inclined to give their mill clients every encouragement to keep modern by a planned, balanced, faithfully followed system of replacement of older, technologically obsolete machinery with newer equipment that gives greater yields at lower cost.

When a mill's management asks a factor for advice on how to finance new equipment, the factor is apt to give an objective reply outlining the advantages and disadvantages of a number of ways available for paying for capital improvements. As a spokesman for one large factoring company puts it, methods of mill modernization should be tailored to the specific needs of a specific mill. There is no formula that fits all of them. This factor sometimes makes loans to a client mill for modernization purposes, after studying the client's needs; often the factor will recommend that the client retain an outside management consultant firm to appraise its plant and equipment in relation to the segments of the market at which that mill aims its products. Such an objective survey, by a capable expert neither connected with the mill or factor, is held to be particularly effective in laying down realistic guide lines for re-equipment and modernization.

Once the client's needs for new equipment are known, the factor may be willing to extend a loan for that purpose. But if the loan is not accepted and the mill chooses to find other means for financing its new equipment purchases, the factor is not at all offended. This particular factoring concern regards its conventional "old line" factoring of its client's accounts receivable as the really important way it serves its clients. Extending loans for new equipment is regarded only as a means of furthering its conventional factoring business, not as an important branch of the business in itself.

By and large, there are five or six different ways in which a mill can pay for new machinery; factors regard all of them as acceptable, depending upon which particular method best suits a given mill's particular situation. Each method has its advantages and disadvantages, and factors are generally scrupulous, when giving their clients counsel, to point out both. Here is a rundown of these methods with their good points and drawbacks.

Cash—When cash is paid there are of course no financing charges—undoubtedly a big advantage. Also, upon payment, the mill takes title to the equipment for good or ill. But payment of cash has the serious drawback of making a painful dent in working capital.

Short Term Bank Loan—Advantages here are lower interest rates than for long term borrowing and the fact that short term loans are easier to obtain. Disadvantages are the need for periodic cleanups; the danger that interest charges may rise; and that the lender may require a compensating balance on deposit.

Capital Issues—Acquisition of capital for new equipment by sales of stock, of course, is not burdened with financing charges. And no debt is created that has to be repaid at a fixed rate. But the weaknesses of this method of raising funds are dilution of ownership; restrictive provisions on preferred

(Continued on Page 76)

Dyeing Notes

(Continued from Page 72)

Onyx Surfactant Catalog

A new 24-page catalog of surface active agents has been published by the Onyx Oil & Chemical Co. Each product is described by trade name, active ingredient, percent activity, physical state, general use, specific applications and properties. *For free copies write the editors.*

New White Pigment

A new white pigment for roller or discharge printing has been introduced by Eastern Color & Chemical Co. Tradenamed Eccoblanc W-45-B, the new product is reported to be a good permanent white pigment for overprinting on dyed background fabrics because it contains non-curing binders, finely dispersed titanium dioxide and permanent non-yellowing whitener. *For further information write the editors.*

Du Pont Dye Lab Rebuilt

A 1½ million dollar program for renovation and modernization of sales service and development facilities at Du Pont's Dyes and Chemicals Division Technical Laboratory at Deepwater Point, N.J., is under way with completion slated for late 1961. The program represents the first major expansion of the laboratory since 1936. It will provide modern facilities for research in the division's original area of dyes, and will answer the need for long-range research and development of industrial chemicals, many of which were introduced within the last decade.

Geigy Reactive Dyes

Geigy Reactone, a new line of reactive dyestuffs, has been introduced by the Dyestuffs Division of Geigy Chemical Corp. The new dyestuffs are reported to have brilliant shades, outstanding solubility, build-up to full shades, easy removal of unfixed color at moderate temperatures, and little or no staining on white grounds. *For further information write the editors.*

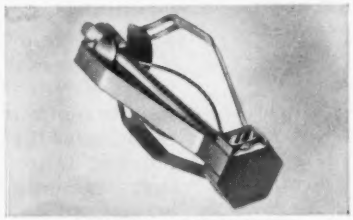
New Fabric Softener

Durafluff, a new cationic fabric softener, is being marketed by Manufacturer's Chemical Co. The new material is said to give fabrics a soft, silky hand with good drape plus increased abrasion resistance. Durafluff can be applied in dye becks, paddle dryers, or washers. Standard equipment is used for extraction and drying. *For further information write the editors.*

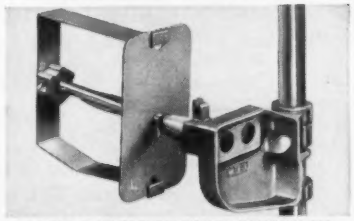
(Continued on Page 77)

HERE'S HOW TO HANDLE ANY PACKAGE WITH McBRIDE VERSATILE PACKAGE HOLDERS

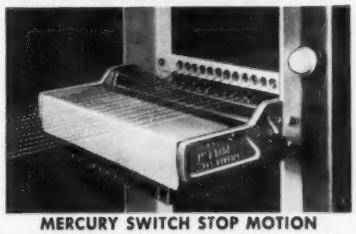
McBride Bowed Spring Spindle with cone and large package holders can accommodate every type of package used on Over End Take-Off today. Adapters feature the quick change design for instant placement or removal, to **cut down changeover time loss.**



UNIVERSAL CONE HOLDER



LARGE DIAMETER PACKAGE HOLDER



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Help from Factors

(Continued from Page 74)

stock, and the fact that preferred stock has a prior lien on dividend money available to stockholders.

Secured and Unsecured Debenture Issues—This method of raising capital funds has the advantages of allowing the planning of a long range financing program. It has the further advantages of fixed financial costs at moderate rate; and it does not deplete working capital. Its disadvantages are that it adds to a corporation's overall debt; there may be restrictive provisions in the bonds; and still more important, it saddles the corporation with a fixed debt that may become painfully burdensome in poor times.

Deferred Payment Directly to Supplier—Sometimes a mill arranges to pay for new equipment in an installment purchase contract made directly with the machinery manufacturer. Here the major advantage is the simplicity of the deal confined, as it is, to a contract between buyer and seller with no third parties participating. A minor advantage is that the buyer, in case of difficulties with equipment, has a short and uncomplicated line of communication to the manufacturer-seller. A drawback in this method of buying new machinery is that a mill may have to enter contractual arrangements with a number of different machinery manufacturers—one for each type of equipment purchased.

Loans from Equipment Financing Companies—If a mill elects to buy new equipment by a loan from a company specializing in financing equipment purchases, a big advantage is that the total amount needed comes from one source although the equipment may be purchased from a number of suppliers. Other advantages are that such an arrangement can be a continuing one, and that it can be completed with relative simplicity and ease. A disadvantage is that this method is relatively costly .

Term Loans from Factor—When a mill acquires the money for new equipment by borrowing from its factor, advantages are these: the loan is part of an overall financial arrangement with the factor; such loans are relatively inexpensive; and since they are contracted with a factor with which the mill has an existing factoring arrangement, both parties are already well-known to each other, and the loan is relatively easy to arrange. A disadvantage is that this method is generally tied in with a factoring arrangement, and that the mill may be required to sign a contract binding it to factor with the lending firm for the duration of the loan.

Leasing from Machinery Suppliers—When instead of outright purchase of new machinery, a mill decides to lease from the machinery manufacturer, the advantages, as in a deferred payment arrangement with the manufacturer, are that the mill deals directly with its supplier and that the lease payments are deductible from taxable income as an expense of doing business. Weaknesses of this method are that only one plan is available and thus the mill buying from a number of different suppliers will have to enter into contracts with each of them.

Leasing from Equipment Leasing Firms—Leasing from firms that take title to the machinery and pay the manufacturer his price is a widespread method of financing equipment in many industries including textiles. Such leases usually run from three to five years. The major advantage of this method is that the lessor mill does not tie up working capital and simply pays a rental fee for the use of the equipment—a rent that is tax deductible. Another advantage is that it enables a mill to get the latest equipment quickly and use it only as long as the mill finds it profitable; but cancellation before the end of the lease term, of course, must be provided for in the lease under terms acceptable to the lessee. Disadvantages of this method are necessarily high rental charges since the equipment leasing company must be assured of getting back its investment plus a reasonable profit in a fairly short time. Then again, many clauses in lease agreements allowing for the lessor to purchase the equipment after five years or so, or to continue to rent at a greatly lowered rate, have come under the close scrutiny of the Internal Revenue Service. There is a suspicion among tax authorities that sometimes leasing arrangements of this kind are an attempt by the lessor to have his cake and eat it with regard to the tax deductibility of the rental payments as contrasted with normal depreciation rates when the equipment is purchased.

Textile Mergers

(Continued from Page 36)

phies of the parent companies may be sharply at variance with each other, and a great deal of the president's time and effort may involve straightening out the ideas of his board members to the neglect of some other important functions.

Another problem might be encountered when a conservatively managed company is teamed up with one favoring a more aggressive approach to marketing. For instance, the latter may insist on a heavy advertising expenditure, as the only way of bringing the new product to the market, while those representing the more conservatively managed company might take a critical exception to this approach. All these situations might delay decisions and actions, which can be costly.

Such are some of the problems which are bound to occur in the operation of the joint subsidiary, and it is dangerous to underestimate the seriousness of these problems. Yet, on balance, there are sufficient advantages in this technique of integration, to make it deserve the attention of top management in the textile industry.

PTI Broadens Courses

Philadelphia Textile Institute, Philadelphia, Pa., has broadened the courses offered to students to include several degree-granting curricula in non-textile majors. This is the first major policy revision in the college's 76-year history. In keeping with the executive level education currently being offered by PTI, there will now be two management curricula, with textile courses optional in one of these, plus two curricula in college chemistry, one without textile application. A general engineering curriculum is being planned to parallel the textile engineering program now given. The recently developed fabric design curriculum incorporating art principles, color and design, styling and art techniques, will continue.

Dyeing Notes

(Continued from Page 75)

Switzer Patent Upheld

Switzer Brothers, Inc., manufacturers of daylight fluorescent colors, reported it has been upheld by a Federal Court decision in its patent litigation with Radiant Color Co. Joseph L. Switzer, vice president, said that his company's lawsuit had alleged infringement by Radiant of Switzer patent 2,809,954 covering resins used in making the Switzer daylight fluorescent pigments. He said the court's decision "awarded us the right to damages and an injunction against further infringement. Radiant's motion for a new trial was denied, and they have now appealed."

Improved Latex Backing

Naugatuck Chemical Division, United States Rubber Co., has developed "Lotol L-4634," a self-curing latex compound for carpet backing said to have exceptional heat and light-aging properties. Also, it won't stain carpet facings or cause odors. The new product can be cured by merely drying, thus making high temperature curing unnecessary. The compound contains neither the usual sulfur curing agents nor accelerators. Naugatuck Chemical reports the compound is currently in production, and is being used by several carpet manufacturers. *For further information write the editors.*

Transfer Remover

W. F. Fancourt Co., has introduced "Transgo Special," an agent to remove transfers from nylon hosiery. Used generally with flake caustic soda, the agent requires carefully-controlled temperatures, according to its manufacturer. Amounts, time and temperature controls for its usage are given in the literature for the type of transfers to be removed. *For further information write to the editors.*

New Geigy Dyestuffs

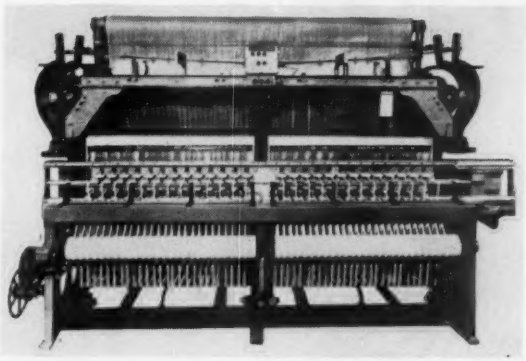
Geigy Dyestuffs has introduced two new dyestuffs. The first, Irgalon Brown GRL, is for use on wool, nylon or silk. Technical information released by the manufacturer stresses its qualities as a utility color for general use on textiles, with the dye meeting the most stringent requirements.

The second product is Leather Olive Brown G (metalized), designed for leather. The dyestuff has level dyeing and clarity qualities and can be easily applied. It has good buffing properties and may be used alone or in combination with other dyes. *For further information write the editors.*

See These FLETCHER 1960 MODELS In Production

Booths 555-556-557-558 ATMA SHOW

The New Fletcher MULTI-FAB High Speed Automatic Loom



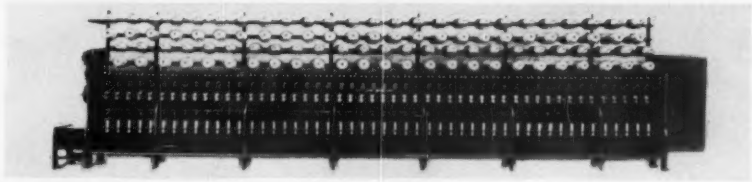
9 foot loom

built for maximum production of quality narrow fabrics

300 picks a minute For light and medium fabrics,

- **ribbons**
- **tapes**
- **elastic**
- **glass**

Fletcher MASTER DUPLEX DOUBLER-TWISTER



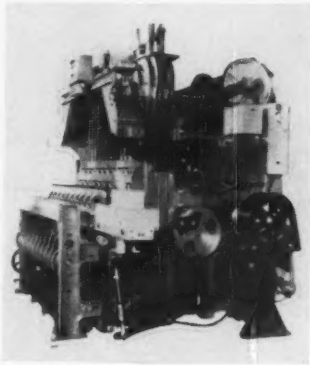
This new, big sturdy precision-built machine with ring size 4¾"—5" has speeds up to 9,000 RPM. Twists up to 8 ends.
Three type packages; conventional 2-headed, tapered top and tapered at both ends.

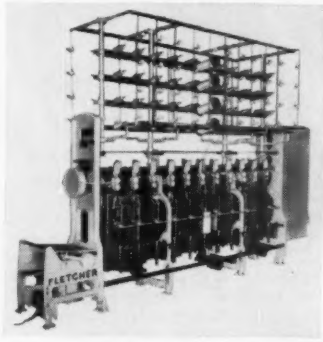
Provides the ultimate in flexibility on all yarns, synthetic or natural.
Gives you larger yarn packages for high-speed, tension-free delivery.

FLETCHER POWER-FAB

High Speed Automatic Loom

5 foot loom • 54 inch traverse warp beams • Quills to 1¾" diameter heads • 250 picks per minute for type I to type IV government web, elastics, plastic webbing • 300 picks per minute for light fabrics, ribbons, tapes and glass.





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5 pounds of Continuous Twisted and Doubled High Quality Woolen-Worsted, Textured, Synthetic and Cotton Yarns.

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ASTRALENE-C

polyester yarns

ASTRALON-C

polyamide yarns

Introducing... an original conception of Stabilized Bulk and Texture in polyester and polyamide Modified Continuous Filament Yarns

The First English Modified Filament Yarn Process to be made available on an International basis under trade mark and patent licensing agreements.

never realised

. . . until she met these new fabrics . that amid today's profusion of names and labels true progress in the field of modified filament textured yarns can be overlooked But Astralene-C (polyester) and Astralon-C (polymide) are made by a marvelous new English process—now available throughout the world. Continuous filament synthetics modified and textured by this process are NEW—not just another name Their intriguing appeal lies in subtle aspects of resilience and bulk reaching far beyond the classic conception of knitwear yarns.

This girl couldn't tell a polygon from a polymer. What she can tell is that Astralene-C and Astralon-C yarns make light and lofty garments that last and keep their attractiveness yet possess a new delicacy of texture. Their low density and great volume give new standards of softness, absorbency and resilience with complete dimensional stability.

Colors are incomparable because of the complete dye affinity of the yarn structure. Astralene-C and Astralon-C yarns give the knitwear manufacturer these extra bonuses: Package-dyed yarns—more garments per pound—exceptional stitch clarity—elimination of thermal post-treatment . . all this with 50 per cent more cover than wool. And for the Licensed processor a precision operation on precision machinery at high speeds.

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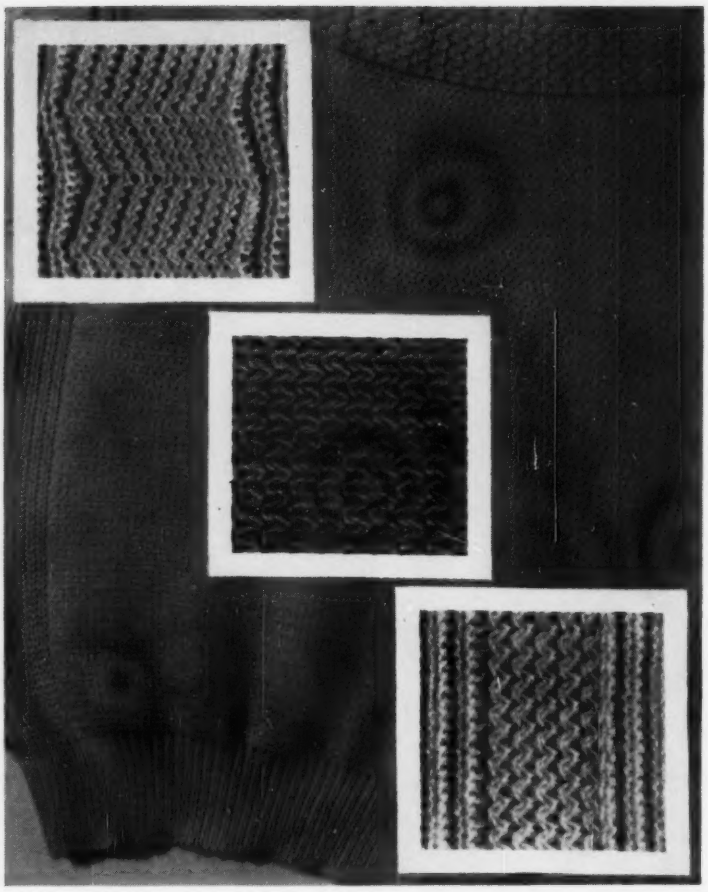
Yarns for modern textiles from SCRAGG machinery

MACCLESFIELD, ENGLAND. Tel: 5242

For circular knitters

EASIER RACK STITCH EFFECTS

New method for Wildman Jacquard machines needs no special attachments



DUE TO THE rapidly growing interest in rack stitch fabrics, Wildman Jacquard Co., Norristown, Pa., has recently devised a method of knitting a variety of rack stitch effects on their models TA, TAI and TJI circular knitting machines without the necessity of using special attachments of any kind, the company reports. These rack stitch effects can be varied from narrow panels to entire bodies if desired. Combinations of rib, half cardigan, full cardigan or tuck stitches can be knit with rack effects using coarse or fine gauge machines, all with knit-on cuff and fully automatic operation. The accompanying illustration shows only a few of the many rack effects possible on these machines.

The method used to produce the rack stitch effects, Wildman states, requires only the re-arrangement of the needle setup plus the proper selection of knitting feeds in conjunction with the operation of the standard rack cam. The rack cam movement relative to the feeds that are actually knitting determines the panel areas (width) wherein the rack can take effect. When operating the machine using any standard knitting set-up it will be noticed that there is a definite space between one feed and its proceeding feed where normally the needles are held in a welt position by the action of the machine's cams.

By operating the rack cam motion and observing this space between feeds during the period of the actual racking cycle, it will be observed that there are certain needles which are not intermeshed. These needles can then be used for making the rack stitches. The remaining intermeshed needles must be re-arranged (spaced) to allow enough room between needles for the rack movement. By varying the sequence of the knitting feeds, (for instance on a 12 feed machine, the feeds could be arranged: 2 feeds knitting, one feed welting, 2 feeds knitting, one feed welting, etc.) it will be noted that a wider space of welted needles is available between one knitting feed and its proceeding knitting feed resulting in a wider racking area. (See illustration showing wide rack panel on sweater). Racking completely around the machine is possible by arranging all the *knitting* feeds on one half of the machine while the feeds on the opposite half of that machine are kept in *welt* position. When arranging the feeds in this manner it is necessary that the needle setup is arranged so that on one half of the machine the needles are spaced to allow the intermeshed knitting needles to rack without interference. The opposite half of the machine has the needles *spaced* in the same manner but this entire set is moved one needle slot to the right (or left) so that none of the needles in this half of the machine are diametrically opposite any of the needles in the other half of the machine.

In addition to the large variety of rack effects possible by using the arrangements as noted above it is also possible to obtain unusual effects by selecting the type of stitch being knitted while the racking is being performed. A tuck stitch for instance when used in combination with racking, produces an open, lace type fabric.

Most rack type fabrics can be knitted with a selected rib cuff, but in order to do this easily, a carefully thought out needle set-out must be used. To obtain additional information for knitting rack fabrics on Wildman Jacquard Machines, readers are invited to write the editors. ■

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New . . . an ALTHOUSE EXCLUSIVE homogeneous neutral dyeing color for nylon . . . superior light fastness . . . 80 hour Fadometer test . . . excellent wash fastness . . . Laundrometer test at 140°F . . . gives bright, clear shades consistently . . . excellent pile on properties. Excellent for the new green shades on taffeta dress goods, tricot, upholstery, carpeting.

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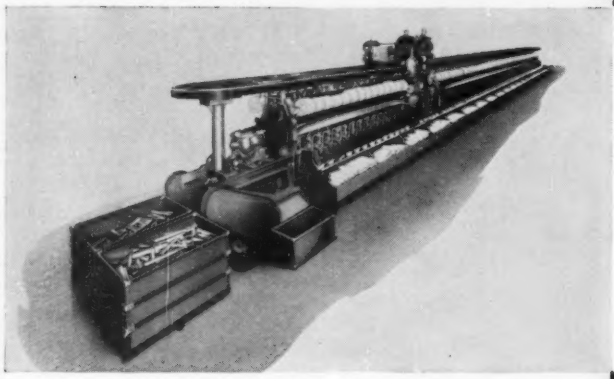
SPACES 112-114 434-465

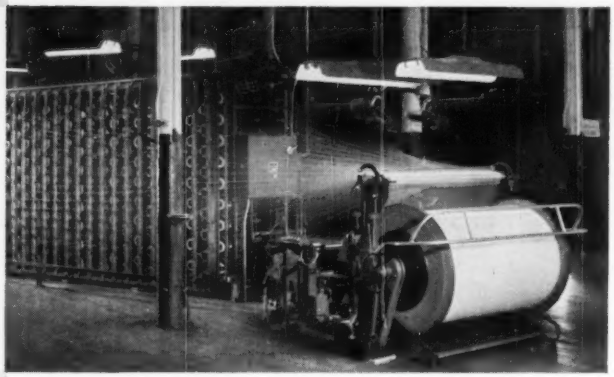


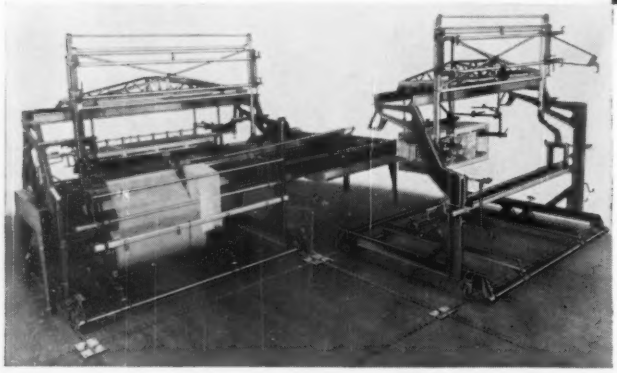
NEW TYPE "F" AUTOMATIC SPOOLER

Increased capacity in the new Type "F" Spooler permits spooling of cheeses and cones up to 6½ lbs. weight from bobbins up to 12¼" long. New features include redesigned bobbin pockets, skewers, winding drums, cheese arms, and snick plates — and the addition of a tailings sorter, tape breaker, and other optional mechanisms. As always, "Every Knot is a True Weaver's Knot."

LARGE-PACKAGE SUPER-SPEED WARPER

The companion machine to the Type "F" Spooler is an improved Super-Speed Warper and Creel. The creel is arranged to take the large 6½ lb. cheeses, the warper will wind larger beams than previous models. In addition, automatic power mechanisms built into the warper enable the doffer to handle the beam from warper to floor or truck with minimum effort.





VERSATILE WARP-DRAWING MACHINE

Improved models of the familiar Barber-Colman Warp Drawing Machine now handle an even greater variety of warps, drawing them accurately from flat sheet, one-and-one lease, or double beams. The pattern-controlled mechanism automatically selects the correct thread eyes for each end, in loom combinations of as many as 26 harness, 6 banks of drop wires, and a reed.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U.S.A. MANCHESTER, ENGLAND MUNICH, GERMANY

INDIA
Batliboi & Company
Forbes Street, Fort
Bombay, India

MEXICO
J. Rabasa
Isabel la Catolica 45-913
Apartado 7348
Mexico D.F., Mexico

BRAZIL
Industria e Comercio de Maquinas S. A.
Avenida Rio Branco No. 50, Rooms 1201, 3
P. O. Box No. 63
Rio de Janeiro, Brazil

JAPAN
Do-Yei Shoji Kabushiki Kaisha
Atlas Building (7th Floor)
11, Bingo-machi, 3-chome,
Higashi-ku,
Osaka, Japan

PAKISTAN
Associated Agencies (M'cr.) Ltd.
Piccadilly House
11 Piccadilly
Manchester 1, England

PAKISTAN
Associated Agencies (M'cr.) Ltd.
27 Kothari Building
Napier Road
Karachi 2, Pakistan

Modern Textiles Magazine's

VISITORS GUIDE

American Textile Machinery Exhibition

IN A SPECIAL CEREMONY, attended by government officials and leaders of America's textile manufacturing and machine building industry on the afternoon of Sunday, May 22, the largest exhibition of textile equipment ever held in the United States will be formally opened in Atlantic City's gigantic Convention Hall. The exhibit which will last through Friday, May 27, will display textile machinery and allied equipment of 350 exhibiting companies, both American and from abroad.

Aptly named the American Textile Machinery Exhibition—International, the gigantic show has been certified by the U.S. Department of Commerce as an International Trade Fair. This privilege permits the entry of foreign machines and equipment for exhibition purposes duty free, provided the goods remain unsold while in the country. The American Textile Machinery Association, sponsors of the Exhibition, will post bond and assume responsibility for foreign exhibits in connection with custom regulations.

Foreign exhibitors at the show will number 88 from Great Britain, Holland, Sweden, West Germany, France, Switzerland, Belgium, Italy, Canada, Japan and Denmark.

Following the opening ceremonies on May 22, there will be a preview tour of the exhibit for the distinguished guests and the press ending with a reception and a buffet dinner. Many notables have been invited to the ceremonies including members of President Eisenhower's cabinet, a delegation of senators and congressmen and governors of all important textile states, ambassadors of foreign countries participating in the exhibition, and officers and directors of leading textile associations and their wives. On Monday, May 23, the five daily working sessions of the Exhibition will open and will be crowded with men and women connected with the textile industry. Admission tickets can be obtained by writing A. C. Rau, Exhibition Manager, Campbell-Fairbanks Associates, 332 Park Square Building, Boston, Mass.

For the Exhibition, the Atlantic City Convention Hall has been enlarged and rebuilt at a cost of $3.5 million. The modernization has greatly increased the space available for exhibits.

GUEST OF HONOR—U. S. Commerce Secretary F. H. Mueller accepts an invitation to opening ceremonies of the American Textile Machinery Exhibition—International from J. H. Bolton, Jr., Whitin Machine Works, chairman of the exhibition committee of the sponsoring organization, the American Textile Machinery Association.

According to John H. Bolton, Jr. of Whitin Machine Works, chairman of the exhibition committee of the American Textile Machinery Association, the big show at Atlantic City will have on display textile equipment worth $30 million, the largest grouping of textile machinery ever assembled anywhere under one roof. Many machinery exhibits will be larger than any staged before by the respective exhibiting manufacturers, Bolton pointed out. A number of exhibitors, he said, have reserved more floor space at Atlantic City than they have ever used before, and some of them have doubled their former space requirements. The last machinery show staged by ATMA was held in Atlantic City in April, 1954.

Among the special events to be held in Atlantic City in conjunction with the Exhibition is a seminar sponsored by Werner Textile Consultants on May 25 at the Shelburne Hotel on the topic of "A Look at the 1960's". Among the panelists will be Dr. W. H. Miernyk, director of economic research, Northeastern University; Walter Regnery, vice president; Joanna Cotton Mills, Walter Kelly, president of Commercial Factors Corp., and C. W. Bendigo, Director of Marketing, Werner Textile Consultants. The seminar will conclude with a luncheon at which Frank Leslie, vice president, Burlington Industries, will be the speaker.

List of Exhibitors

ABBOTT MACHINE CO., INC.
WILTON, N. H. —(84A-85)

Manufacturers of bobbins and spools; accessory equipment for preparatory machines.

IN ATTENDANCE: S. A. Roane, L. S. Ligon, E. W. Skinner, S. L. Abbott.

ABINGTON TEXTILE MACHINERY WORKS
BOSTON, MASS.—(240-245)

EXHIBIT: Latest vacuum Stripping system for revolving flat top cards; Hand Knotters; automatic remote controlled Bottom Discharge Receiver; Cardpen.
IN ATTENDANCE: John W. Burbine, W. W. Brame, M. R. Bradley, Sumner Smith, Jr., Francis J. Richardson, Oliver H. Ramo.

ABNEY MILLS
GREENWOOD, S. C.—(1229-30, 1308-09)

Manufacturers of weaving equipment.
Represented by Edda International.

AEROSOL CO.
HANNOVER, GERMANY—(1538)

Manufacturers of textile accessory equipment.

AGRICUTURAL RESEARCH SERVICE
WASHINGTON, D. C.—(755)

Together with Southern Regional Research Laboratory, U. S. Dept. of Agriculture.

EXHIBIT: Preparatory machine for cotton.

ALLEN-BRADLEY CO.
MILWAUKEE, WIS.—(404-405)

EXHIBIT: Electric motor control especially applicable to the textile industry, including manual and magnetic starters and various pilot devices and accessories.

ALLEN WARPER CO.
LOWELL, MASS.—(274)

EXHIBIT: High-speed Model G-3 Allen Warper arranged to accommodate beams of any head size up to and including 40"; a 40" head diameter Allen Beam as manufactured by their affiliate Allen Beam Co.; also a sample Creel section, Warper Beam Heads and Loom Beam Heads.
IN ATTENDANCE: R. Udell Thornton, William L. Peterson, Donald J. Laffey.

ALLENTOWN BOBBIN WORKS, INC.
ALLENTOWN, PA.—(654)

EXHIBIT: Bobbins and spools for the throwing of fine denier yarns, such as silk, rayon, nylon and combination yarns.
IN ATTENDANCE: Henry W. Mack and Harold S. Barnes.

ALLIED CHEMICAL CORP.
NEW YORK, N. Y.—(36-36A)

EXHIBIT: Demonstration of the most advanced techniques in textured filament nylon in home furnishings fabrics. Fabrics will show the use of newly developed mirror-effect, color-blend, space-treated, cork-screw, and other innovations in heavy denier continuous filament nylon.
IN ATTENDANCE: Robert E. Ellsworth, Francis P. Gavagan, Arnold Kranzler.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WIS.—(66-68)

Manufacturers of Variable Speed Drives, electric Motor Controls.

AMERICAN DYESTUFF REPORTER
NEW YORK, N. Y.—(758)

AMERICAN LAVA CORP.
CHATTANOOGA, TENN.—(418)

EXHIBIT: "AlSiMag" ceramic thread guides for all textile machinery.
IN ATTENDANCE: J. B. Shacklett, W. H. Cooper, J. S. Gosnell, W. J. Geary, J. W. Crisp.

AMERICAN MOISTENING CO.
CLEVELAND, N. C.—(51-56)

EXHIBIT: Ceiling Cleaner, Roving Frame Cleaner, Aero-Miser, Modulating Interrupter, and floor-mounted Loom Cleaner. Also their No. 6 Atomizer, Blow-thru-Valve, Sling Psychrometer, Amco Psychron, Automatic Ventilating Unit for ductless evaporative cooling systems, and Model 35 Humidifier. Demonstration of their small Unit Air Washer. Moving pictures of their Loom Cleaning and Ceiling Cleaning Units in actual operation in the mill. Standard Amco accessories for humidification and air conditioning systems.
IN ATTENDANCE: Marvin McCall, M. H. Irons, H. R. Rich, N. B. Chase, W. A. Mullins, J. D. Johnson, J. H. Waldrip, J. E. Townsend, L. D. Terry, J. Walmsley.

AMERICAN MONORAIL CO.
CLEVELAND, OHIO—(1437-39, 1503-05)

EXHIBIT: Vacuum type automatic cleaner over a Roberts Frame, automatic cleaner over roving machine, demonstration of new type loom cleaner.
IN ATTENDANCE: C. L. Fell, L. R. McEachern, H. Joe Gleaton, John Browne, E. Wellborn Cook, John Mikel, E. S. Murray, James Whitted, Henry McKinney, C. P. Newell.

AMERICAN RIETER CO., INC.
WEST CALDWELL, N. J.—(5, 6, 19-28)

See Rieter & Co. Ltd., Switzerland

AMERICA'S TEXTILE REPORTER
BOSTON, MASS.—(302-303)

ANDERSON MACHINE SHOP, INC.
NEEDHAM HEIGHTS, MASS,—(551)

EXHIBIT: New model Pacific Evenness Tester; new model Pacific Integrator; static measuring device.
IN ATTENDANCE: Angus G. Anderson.

ARMSTRONG MACHINE CO.
SYRACUSE, N. Y.—(820)

Representing Albert Jurgens.

ARMSTRONG MACHINE WORKS
THREE RIVERS, MICH.—(394)

EXHIBIT: Glass model of their Steam Trap, and a Steam Humidifier, both in operation; also sectionals of their steam, air and air relief Traps, Humidifiers and Strainers.
IN ATTENDANCE: T. H. Rea, T. M. Reed, O. L. Ulrich.

ASHWORTH BROS. INC.
FALL RIVER, MASS.—(669-671)

EXHIBIT: Card clothing for all types of cards, also brush clothing and card clothing for special purposes; flat clothing; metallic, lickerin and garnet wires; flexible bend grinding; remilling of flats; conveyor belts for use in non-woven textile manufacture and other textile applications.
IN ATTENDANCE: R. C. Ashworth, Jr., W. J. Flynn, Jr., H. Ashworth, F. L. Armitage, R. C. Ashworth, III, G. A. Davis, C. E. Lalime, Phillip Brann, J. M. Reed, J. E. Seacord, Jr., Thurman Hart, Michael Croce, A. E. Johnston, Jr., C. C. Withington, Jr., W. G. Halstead, Ray Clary, F. W. Hale, D. J. Daylor.

ATELIERS HOUGET
VERVIERS, BELGIUM—(857, 903-906)

EXHIBIT: Their R.T.F1 ring spinning frame for condenser yarns.

IN ATTENDANCE: Van Ditshuizen, Mr. Vervenne.

ATELIERS RAXHON, S. A.
THEUX-LES-VERVIERS, BELGIUM—(851-52, 908-909)

Manufacturers of Dyeing and Finishing equipment.

ATELIERS ROANNAIS DE CONSTRUCTIONS TEXTILES
ROANNE, FRANCE—(1054-55, 1103-04)

With Whitin Machine Works, which see.

ATKINSON, HASERICK & CO., INC.
FRAMINGHAM, MASS.—(818-819)

They are representing the following European firms: Platt Bros. (Sales) Ltd.; Carding Specialists Ltd., Societe Alsacienne de Constructions Mecaniques; Tomlinsons (Rochdale) Ltd., Spencer & Halstead Ltd.; Plutte, Koecke & Co.; Standfast Dyers & Printers Ltd. (For Exhibits and Attendance see under these firms.)

IN ATTENDANCES John L. Coon, Walter P. Rutley, Elmer J. McVey, Harvey H. Clinch, C. Perry Clanton, F. Eugene Bozeman.

BAGSHAW CO., INC., W. H.
NASHUA, N. H.—(63-64)

EXHIBIT: Pins and lags for opening and processing textile fibers.

IN ATTENDANCE: Joseph J. Bagshaw, Mark H. Bagshaw, Thomas W. O'Day, A. Kendall Hall.

BAHNSON CO.
WINSTON-SALEM, N. C.—(11-18)

EXHIBIT: Cross-Jet spinning frame cleaner with floor sweeping,; Aero-Sweep ceiling cleaner; Loom cleaner; Collecto-Vac broken end collection; Central station air conditioner with type Y air washer; Bahnson Grilles; ESC Atomizers; Controls; and a newly developed piece of equipment, not shown before.

IN ATTENDANCE: A. H. Bahnson, Jr., W. M. Fulp, A. E. Thomas, I. L. Brown, R. B. Crosland, J. G. Browning, S. B. Blanton, W. F. Walters, J. C. Rose.

BARBER-COLMAN CO.
ROCKFORD, ILL.—(434-465)

EXHIBIT: 60-spindle Type FF Automatic Spooler; 54-½" DW Super-Speed Warper with DC Creel; gSH Warp Drawing machine.

IN ATTENDANCE: R. G. Ross, W. P. Turner, F. D. Taylor, H. C. Schleicher.

BARCO MANUFACTURING CO.
BARRINGTON, ILL.—(382-383)

Manufacturers of Rotary Joints for steam fitting, flexible ball and swivel joints.

BAXTER CORP., JACQUARD DIV.
PATERSON, N. J.—(1-4)

EXHIBIT: As representatives of Societe des Mecaniques Verdol, Lyon, France, inventors and manufacturers of endless paper tape Jacquard machines, they will have on display a Verdol Double Lift Open Machine, a new Verdol Jacquard Machine, and an electric Card Cutting and Repeating Machine.

IN ATTENDANCE: Irving S. Baxter, sales executives and representatives from France.

BEARD, EDWARD S.
SPRING CITY, PA.—(702)

EXHIBIT: Aluminum Pot Eyes; all types of stainless steel Spreaders, their new Steam Valve; and (at the Turbo Machine Co. booth 807) their newly patented Over-Feeding Calender Machine and Padder.

IN ATTENDANCE: Edward S. Beard, Rodney Kirkner.

BENTLEY KNITTING MACHINERY ORGANIZATION LTD.
ENGLAND—(39)

With A. B. Carter, Inc. which see.

BIRCH BROTHERS, INC.
SOMERVILLE, MASS.—(466-468)

EXHIBIT: Model 7 Three-Roll Automatic Pneumatic Cut-Off Winder; new Two-Roll Laboratory "Minicalender"; new "Flexlife" ball bearing Expander Roll; their new line of 'Flightweight" Mill Sewing Machines; a Model BB880 heavy duty high speed Scutcher.

IN ATTENDANCE: Clifford W. Birch, Jr., Harold W. Birch, Richard Briggs, John C. Cosby, Herbert J. Anderson.

BISHOP & CO., J.
MALVERN, PA.—(709)

EXHIBIT: All types of spinnerettes for the manmade fiber industry; Tubular products of stainless steel, nickel, and nickel alloys for textile machinery parts.

IN ATTENDANCE: J. J. Buckley, Howard S. Roberts, M. A. Hatch, M. Burkus, J. Povey, C. McDonald.

BONAS BROS. LOOMS INC.
NEW YORK, N. Y.—(800-802)

EXHIBIT: Their Weavematic high-speed narrow fabric needle looms MarkV and Mark VII. Five machines will be shown together with one Bonas warping machine.

IN ATTENDANCE: Harry G. Bonas, Ernest W. Rowntree, both from the English parent company, and Charles Hackett.

BOOTH CO., BENJAMIN
PHILADELPHIA, PA.—(390-391)

EXHIBIT: Their Micr-O-Grind card clothing; equipment for grinding card clothing; Gran-O-Top their SRRL granular card conversion; and their new condenser tape Supr-O-Tape.

IN ATTENDANCE: E. A. Snape, Jr., Norman Bush, Ed. Snape, Charles Stover, William Gill, Richard Hurley, Wilson Hurley, Henry Harrison, and W. Graf from Switzerland.

BRIGGS-SHAFFNER CO.
WINSTON-SALEM, N. C.—(644-645)

EXHIBIT: Aluminum section and tricot beams, aluminum quill boards, dry rods, castings and miscellaneous anodized parts.

IN ATTENDANCE: Paul H. Johnson, E. N. Shaffner, C. A. Sinquefield, S. A. Harris.

BRITISH NORTHROP LTD.
BLACKBURN, ENGLAND—(842-843, 917-918)

EXHIBIT: Their high-speed single shuttle loom with Unifil; High-speed 4-color check loom.

IN ATTENDANCE: G. L. G. Jackson, H. De G. Gaudin, A. V. Lepere, J. N. B. Cardwell, J. K. Sugden, J. Parnell, R. Thornton, Mrs. E. Moss.

BUNTING BRASS & BRONZE CO.
TOLEDO, OHIO—(81)

EXHIBIT: Various types of special and standard Bearings.

IN ATTENDANCE: W. J. McTighe, P. E. Holt, W. C. Bracken.

BURLAP TUBING MFRS., INC.
PHILADELPHIA, PA.—(281)

Supplies for Packaging.

BUSER ENGINEERING WORKS, FRITZ
WILER, SWITZERLAND—(1208)

Represented by Jungfrau, Inc.

PRODUCT: Screen Printing Machines.

BUTTERWORTH & SONS, CO. H. W.
BETHAYRES, PA.—(621-28)

EXHIBIT: New patented Winder; 6-needle Sewing Machine; new method of applying pneumatic pressure to printing machine mandrels; new compartment Washer; 6-cylinder Dryer; laboratory Padding Machine; latest high-speed Tentering Machine in operation; newly designed Tenter Clamps.

IN ATTENDANCE: J. E. Butterworth, DeHaven Butterworth, Stanley Brooks, Thomas M. Davis, Jr., J. Joseph Sippel, T. W. Kitchen, George M. Marks, Victor A. Jones, Harold E. Whitaker.

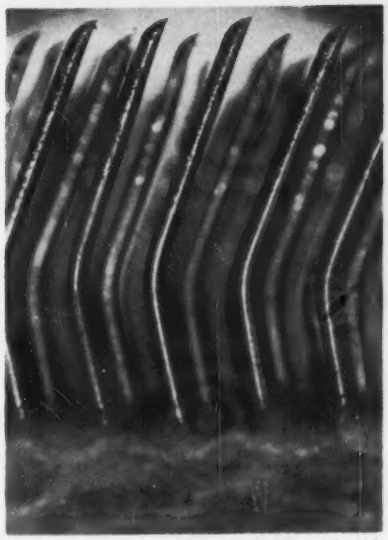


Photo-Micrograph (20x) showing keenly tapered needle point of Booth Micr-O-Grind card clothing.

ETS. CALLEBAUT-DE BLICQUY S. A.
BRUSSELS, BELGIUM—(853, 907)

EXHIBIT: Totally enclosed high temperature dyeing and bleaching machine Model "React-O-Mat"; cupboard-type dyeing machine for skein dyeing with double row of sticks; two automatic high-temperature laboratory water baths for the dyeing of samples.

IN ATTENDANCE: A. P. Snoeck.

CANADIAN TEXTILE JOURNAL
MONTREAL, CANADA—(753)

CARDING SPECIALISTS LTD.

Represented by Atkinson, Haserick & Co.—(818-819)

EXHIBIT: Crosrol Cotton Web Purifier; Eureka Card Tops.

IN ATTENDANCE: Andre Varga, Andre Jamar and members of Atkinson staff.

CARDPEN, SOCIETE FRANCAISE
FRANCE—(240)

Represented by Abington

CARNITI & CO., A.
OGGIONO, COMO, ITALY—(1336-1338)

Represented by Stellamcor, Inc.

EXHIBIT: Cotton and Worsted Spinning Equipment.

IN ATTENDANCE: Dario Carniti.

CAROLINA FIBERGLASS PRODUCTS CO.
WILSON, N. C.—(1205)

EXHIBIT: Fiberglass dye containers, vats, tubs, buckets, cloth boxes, etc.

IN ATTENDANCE: W. N. Conoley, R. P. Watson, Jr., D. L. Collins.

CARTER INC., A. B.
GASTONIA, N.C.—(39-40)

EXHIBIT: Boyce weavers knotter, Boyce fisherman's knotter, spinning and twister travelers, "Phantom" system.

IN ATTENDANCE: J. K. Davis, D. E. Philkips, P. L. Piercy, W. T. Horton, B. R. Link, J. R. Richie, P. R. Stroup, J. B. Carter, E. Haines Gregg, L. O. Talley.

CHANDLER MACHINE CO.
AYER, MASS.—(326)

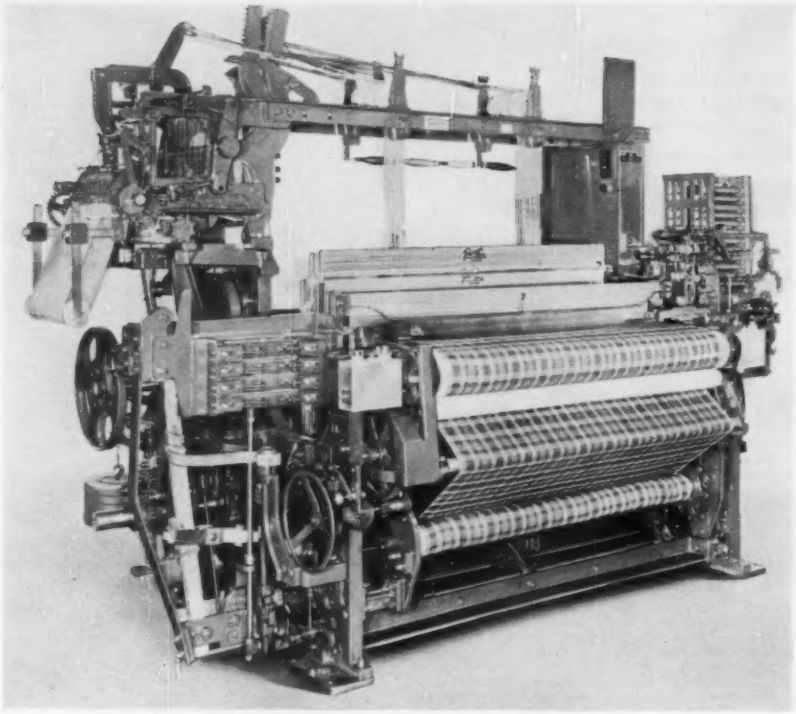
EXHIBIT: New power operated sample cutting, pinking machine, new permanent pleating machine.

IN ATTENDANCE: R. C. Maxant, A. A. Maxant.

CHEMSTRAND CORP., THE
NEW YORK, N. Y.—(71-73)

EXHIBIT: Carpets made of their new Cumuloft nylon yarn; spun-dyed Acrilan; end products of Acrilan and Acrilan 16 blends; also a wide range of home furnishings, apparel and industrial end products of Acrilan and Chemstrand nylon.

IN ATTENDANCE: W. G. Luttge, M. R. Dalton, I. Bollinger, H. Cramer, R. H. Hale, C. C. Madeira, W. C. Melton, Jr.



One of the three C-7 Looms shown by Crompton & Knowles

C.I.T. CORP.
NEW YORK, N. Y.—(1218-1219)

EXHIBIT: The advantages of long-term financing programs for the acquisition of textile machinery will be outlined.
IN ATTENDANCE: E. H. Mayer, Donald E. Kidd, E. T. Neville, D. V. McCarthy, E. W. Ford.

CLARK-CUTLER McDERMOTT CO.
FRANKLIN, MASS.—(288)

PRODUCT: Accessory equipment, preparatory machinery, vibration dampers, control.

CLARK DOOR CO., INC.
NEWARK, N. J.—(58)

EXHIBIT: Their Shock Absorber Door and their Prest-O-Matic Automatic Door.
IN ATTENDANCE: Henry B. Clark, Jr., Eduard A. Wieyleb, G. J. Valk, Henry B. Clark.

CLARK PUBLISHING CO.
CHARLOTTE, N. C.—(92)

CLEVELAND WORM & GEAR CO.
CLEVELAND, OHIO—(299-300)

EXHIBIT: Their speed reducers, worms and gears for built-in drive applications, speed variators; Farval centralized systems for lubrication.
IN ATTENDANCE: D. W. Leader and others.

CLINTON CORN PROCESSSING CO.
CLINTON, IOWA—(62)

EXHIBIT: No display. Space to be used as reception booth.
IN ATTENDANCE: A. C. Junge, R. C. Rau, C. F. Cline, Jr., Glenn Henderson, Grady Gilbert, C. W. Hite, Boyce Estes, E. F. Patterson, J. L. Finley.

COATS & CLARK, INC.
NEWARK, N. J.—(9)

EXHIBIT: Nylon Twister Travelers.
IN ATTENDANCE: R. H. Wilcox, T. B. Farmer, M. H. Cranford, H. A. Garter.

COCKER MACHINE & FOUNDRY CO.
GASTONIA, N. C.—(615-620, 629-634)

EXHIBIT: Slasher, Section Beam Warper, Tricot Warper, Nemo Jet Size Cooker, Sample Creels.
IN ATTENDANCE: John Cocker III, John C. Bodansky, T. F. Suggs, O. L. Davis, F. H. Cunningham, J. L. Etheridge, H. W. Kiser, Geo. Manning, J. A. McCoig.

COLLINS BROS. MACHINE CO.
PAWTUCKET, R. I.—(8)

EXHIBIT: Their SAV-Yarn Twister.
IN ATTENDANCE: Henry Collins, Karl H. Inderfurth, H. Nelson Collins.

COMETSA
VERGERA, SPAIN—(808)

Accessory equipment for spinning.
Represented by Edward B. Rock.

COOK MACHINE CO.
LOWELL, MASS.—(266)

With Riggs & Lombard which see.

CORN PRODUCTS SALES CO.
NEW YORK, N. Y.—(295)

EXHIBIT: Model Starch Cooker.
IN ATTENDANCE: J. R. Hill, W. R. Joyner, P. A. Donaghy, Jr., F. C. Hassman, H. Harris, J. A. Simpson, D. Jenkins, A. A. Harden, E. G. King, T. Blackwell, G. Wood, R. Miller, C. Spencer, H. Plimpton, R. W. Bond, T. A. Bruce, P. A. Donaghy, Sr., J. Seawall, F. J. Holsinger, J. Adcock.

COSA CORP.
NEW YORK, N. Y.—(821-829)

EXHIBIT: As representatives of European firms, they will show an Arbach Steaming and Finishing machine, a Stork model of their Rope-O-Matic Washing machine, a Schilde Air Penetration Dryer, Sahm High Speed Precision Winders, a Kettling & Braun Napping machine for knitted fabrics, a Scholl Package Extractor & Dryer laboratory Dyeing machine, Erhardt & Leiner Cloth Feeders, Selvage Guides, and Iron Detector, Mettler Skein to Can Winder, Yarn Singeing machine, Doubler Winder, and Croon & Luke Reeling machines.
IN ATTENDANCE: W. Swatek, O. J. Guttmann, R. H. Meadows, H. J. Korndoerfer, F. Saxer, all of Cosa; representatives of the European firms (see under these firms.)

COTTON-McCAULEY & CO., INC.
PAWTUCKET, R. I.—(118-119)

EXHIBIT: A Saco-Lowell Spinning Frame will be in operation, using Machinecraft's "Cleanguide" double apron changeover, spring weighting, and the latest in fabricated roll stands. "Climax" ball bearing top rolls and "Cleandraft" non-lubricating top rolls.
IN ATTENDANCE: Frank H. Cotton, Raymond L. McCauley, Richard K. Butler, J. Bertram Howarth, Cecil A. McAbee, Hubert H. Robbins, Benjamin F. Deming.

COTTON TRADE JOURNAL
MEMPHIS, TENN.—(755-756)

COURTAULDS (ALABAMA) INC.
NEW YORK, N. Y.—(33-34)

EXHIBIT: Display of their products Coloray, Topel and Corval from fiber through yarn, fabrics and end products, with technical information on spinning, knitting, weaving, dyeing and finishing.
IN ATTENDANCE: Royston E. Dunford, Homer M. Carter, Jr., Geoffrey Lund, A. Beekman Hilton, William E. Totten, George Stanley, Norman Casey, Rose A. Simmons, Nancy Wolf, William Ward, T. G. Etheridge, Dwight Bell, Jr.

CRABTREE TEXTILE ACCESSORIES LTD.
STONEBRIDGE WORKS, COLNE, ENGLAND—(1200-1201)

EXHIBIT: Sintox Alumina Thread Guides and "Mirrobrite" and "Setasatin" hard chrome plated guides; Tension devices including new types with Sintox ceramic surfaces; various types of Springs; Card Clothing; Paper Tubes and Cones; and stainless steel Dyeing Tubes and Cones. Their new guide material "Ceracote".
IN ATTENDANCE: John Crabtree, Jean Crabtree, J. B. Ashworth.

CROMPTON & KNOWLES CORP.
WORCESTER, MASS.—(360-377)

EXHIBIT: Three C-7 Looms weaving fancy terry towelling, fancy synthetic (spun blend) women's wear, and fancy filament dress goods respectively. One Needle Loom weaving two 1¼" wide tapes simultaneously side by side. A PAPA Loom weaving an upholstery fabric. A 1304-Hook, Double Lift, Double Cylinder Jacquard mounted at eye level to show up-to-date features.
IN ATTENDANCE: Frederic W. Howe, Jr., Albert Palmer, Joseph F. Molloy, John C. Irving, William O. Fisher, Wilfred C. Howe, John H. Doyle, Aaron Begum, Thomas D. Craig, William G. Hjerpe, James Hewitt, Arthur M. Herman, Allan F. Ballantyne, Raymond A. Sharpe, Henry G. Wingard, Lewis Burgess, Robert S. Shedin, Victor F. Sepavich, Herbert V. Foster, James Barringer, C. Eugene Moore, Herbert F. Smith, Robert M. Kendrick, George W. Johnson, William C. Gray, Ralph A. Huey, Thomas F. Gleason, P. F. Cox, J. J. Henry, C. P. Bergstrom, Warren S. Snow, Paul L. Safford, Philip A. Nims.

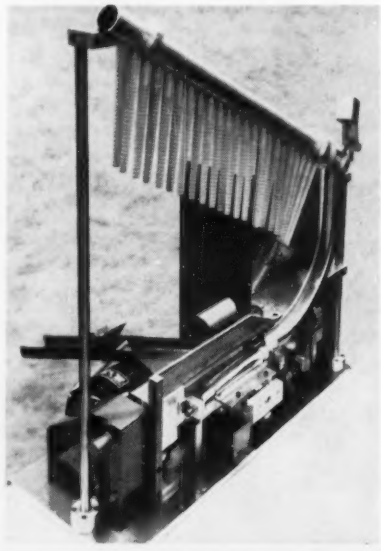
CROON & LUCKE, GMBH.
MENGEN, GERMANY—(924-927)

Represented in USA and Canada by Cosa Corp., New York, N. Y.

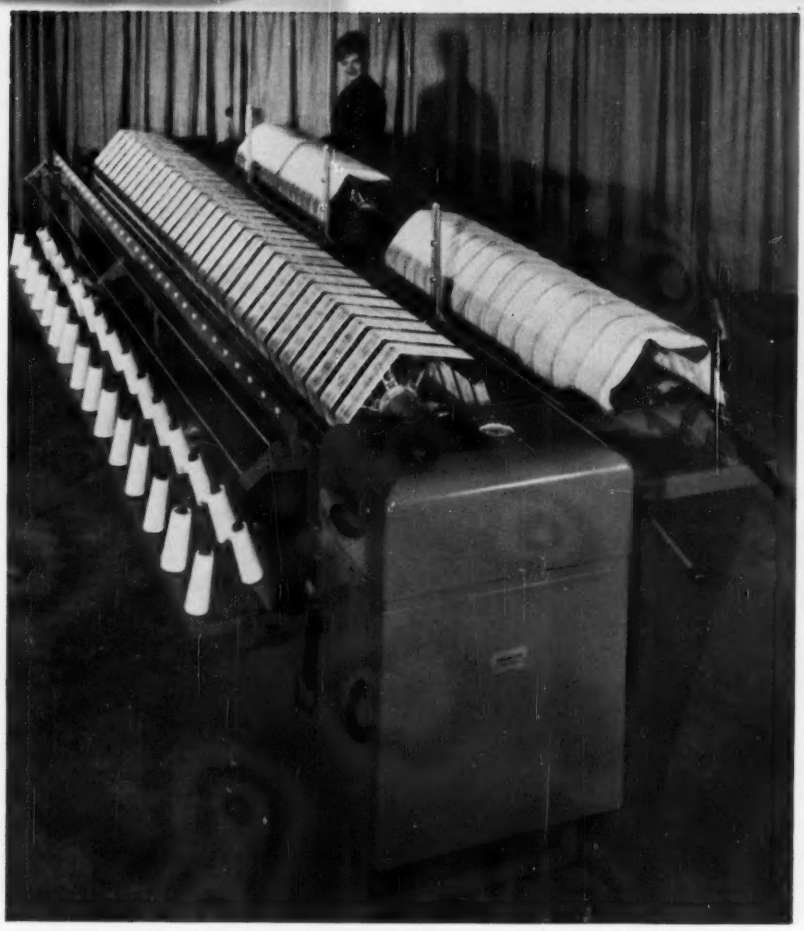
EXHIBIT: Change Reeling Machine Model W 400 K for the production of skeins of crimped yarn; Double Reeling Machine Model S 2/150 especially suited for worsted and coarse yarns.
IN ATTENDANCE: Walter Schmidli.

CURLATOR CORP.
EAST ROCHESTER, N. Y.—(278)

EXHIBIT: Rando-Feeder and Rando-Webber.
IN ATTENDANCE: J. W. Ingle, H. H. Langdon, G. B. Harvey, J. R. Schurz.



Custom Scientific's new unit "The Quil-Check"



Croon & Lucke's Change Reeling Machine Model W400K for crimped yarn

CURTIS & MARBLE MACHINE CO.
WORCESTER, MASS.—(157-162)

EXHIBIT: New SL Selvage Shear in operation; their M-125 Cloth Folder; portable Railway Sewing Machine for reinforced seams; LM portable Rug Shear.
IN ATTENDANCE: Walter E. Hildick, Walter F. Woodward, Leland F. Remington, Jack Federline, Jack Stanley, Robert G. Simpson, Harold Russell.

CUSTOM SCIENTIFIC INSTRUMENTS, INC.
KEARNY, N. J.—(476)

EXHIBIT: Introducing their new unit "The Quil-Chek" which automatically passes or rejects quills based on the quills runout. Also their Gear Runout Tester, Roll Runout Indicator, and Traveler Hardness Tester.
IN ATTENDANCE: H. J. Bultman, Jr., R. J. Novotny.

CUTLER-HAMMER, INC.
MILWAUKEE, WIS.—(80)

PRODUCT: Auxiliary equipment, electric control systems.

DAILY NEWS RECORD
NEW YORK, N. Y.—(395-396)

DAIWA SPINNING CO.
OSAKA, JAPAN—(1024-1027)

Represented in U. S. by Edward S. Rudnick.

EXHIBIT: Their improved Carding Machine attachment in operation.
IN ATTENDANCE: A. Aoki, and members of Rudnick staff.

DAVIDSON, MacGREGOR & CO., LTD.
HANTS, ENGLAND—(1139)

PRODUCT: Accessory equipment for dyeing processes.

DAVIS & FURBER MACHINE CO.
NORTH ANDOVER, MASS.—(527-546, 549-550)

EXHIBIT: New Fiber Blending Opener to prepare stock for woolen cards; Single Breaker, Double Finisher 84" Woolen Card with #50 all-metal wire breast, Harwood G-3 Bramwell stock feeder, intermediate feed with Peralta latest Model L 5-A tape condenser; new 2-cylinder Sliver Card 60" wide, all metallic wire; new Model H high production wool Ring Spinning Frame; "Selectrite" double acting #90 wide Napper.
IN ATTENDANCE: A. W. Reynolds, E. N. Atwood, William Andrews, J. W. Wagoner, I. C. Howes, J. A. Kooistra, L. E. Bussiere, J. C. Cantlin, J. Mansfield, E. Salesky, H. Sherlock, R. W. Reynolds, J. N. Frye.

DAVISON PUBLISHING CO.
RIDGEWOOD, N. J.—(424-425)

DEAN PRODUCTS, INC.
BROOKLYN, N. Y.—(123)

EXHIBIT: Their versatile Panelcoil heat Transfer Units for the textile industry.
IN ATTENDANCE: Walter Raskin, Rubin Raskin, M. William Ehrlich.

DEERING MILLIKEN RESEARCH CORP.
SPARTANBURG, S. C.—(124-126)

EXHIBIT: Machines for the production of stretch or bulked Agilon yarns and of single end stretch yarns.
IN ATTENDANCE: Russell B. Newton, Norman C. Armitage, William E. Moss.

DELERUE & CIE.
ROUBAIX, FRANCE—(1535-37)

With Interstate Textile Equipment Co. which see.

DENMAN RUBBER MFG. CO.
With Terrell Machine Co.

DIEHL MANUFACTURING CO.
SOMERVILLE, N. J.—(289-291)

EXHIBIT: Power Transmitters and automatic Tension Control equipment.
IN ATTENDANCE: A Roy Booth, Robert H. Hanson, Kenneth L. Trostle, John S. Wood, Alex J. Murphy, Franklin A. Yates, Edward P. Turner, Lorenz A. Wendel, Victor Marchuk, Edward F. Hall, William B. Hunter, Joseph C. Ike.

DIXON CORP.
BRISTOL, R. I.—(76-78)

EXHIBIT: Two complete spinning frames in full operation will display the most important drafting elements. Other changeovers and partial changeovers will be shown; also included in the various drafting assemblies will be new ideas in weighting, roll design and fiber control.

DRACUP, SAMUEL & SONS, LTD.
BRADFORD, ENGLAND—(1432-35)

PRODUCT: Cop winding and weaving machines.

DRAPER CORP.
HOPEDALE, MASS.—(115-439)

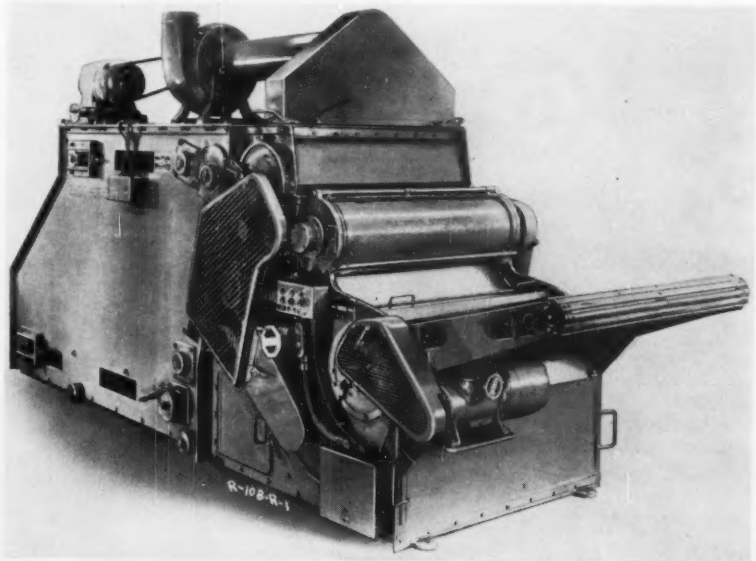
EXHIBIT: Three Draper Shuttleless Looms, one XB Model Loom and one X-3 Model Loom.
IN ATTENDANCE: Thomas H. West, William K. Child, Walter M. Mitchell.

DUDLEY, GARLAND & JENSEN, INC.
NEEDHAM HEIGHTS, MASS.—(757)

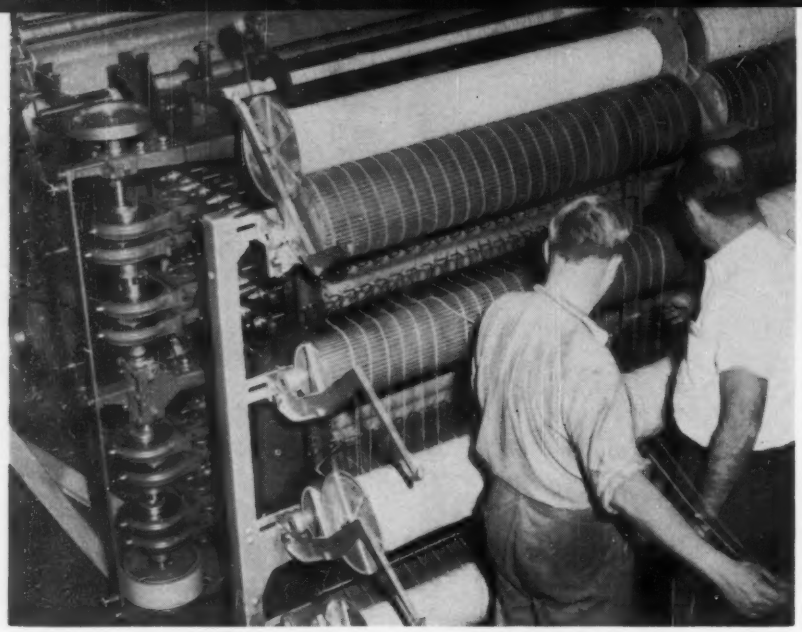
EXHIBIT: Gas burning equipment with a conversion of textile dryers, curers and singers; pre-wired control cabinets for gas combustion systems.
IN ATTENDANCE: George W. Garland, Joseph L. Dudley, John R. MacIntosh, Lawrence S. Holbrook.

DUESBERG-BOSSON OF AMERICA, INC.
JEFFERSON, MASS.—(703-708)

Manufacturers of preparatory and spinning machinery for wool.



Curlator's Randowebber



Davis & Furber's new Model L Woolen Card

DU PONT DE NEMOURS & CO., INC., E. I.
WILMINGTON, DEL.—(1300-1303, 1235-1238)

EXHIBIT: Samples of various manmade fibers produced by Du Pont, including the newest fibers resulting from their research and development work.
IN ATTENDANCE: Technical service personnel and representatives of domestic and export marketing divisions.

DURANITRE, S. A., ETS. LA
HERSTAL, BELGIUM—(803-806)

Represented by Stellamcor, Inc.

EXHIBIT: Autoleveller "Autocalibreur" with twin head delivery; high speed Gill Box "Record Drafter" with sextuple delivery.
IN ATTENDANCE: Members of Stellamcor staff.

DURANT MANUFACTURING CO.
MILWAUKEE, WIS.—(292)

EXHIBIT: Their new electric Pick Counter system; also their entire line of lineal, predetermined, stroke, rotary and electric counters.; Doffmeters.
IN ATTENDANCE: E. W. Crane, J. K. McGinley, R. B. Winkler, L. A. Nourie, M. R. Snyder, E. Brown.

EATON MANUFACTURING CO.
CLEVELAND, OHIO—(298)

See under Cleveland Worm & Gear Div.

EDDA INTERNATIONAL CORP.
NEW YORK, N. Y.—(1227-28, 1310-11)

EXHIBIT: Titan warp tying-in machines, Excelsior reed cleaning & polishing equipment; Henriksen universal precision VH-Super jig, Maxbo shuttleless loom; loom parts.
IN ATTENDANCE: B. Gudjonsson, H. A. Nagel, H. Lindqvist, H. H. Thacker, R. J. Farr.

EGAN & CO., FRANK W.
SOMERVILLE, N. J.—(751)

EXHIBIT: Their electric ironing machine for face-finished woolen and synthetic fabrics and high-pile knits; their high velocity coating machines and dryers.
IN ATTENDANCE: Allan Schnitzer, Robert Sturken.

ENGINEERED PLASTICS, INC.
GIBSONVILLE, N. C.—(301)

EXHIBIT: Synthetic twister bobbins, tubes, caps, adapters, and textile machine parts and accessories.
IN ATTENDANCE: D. M. Davidson, Jr., J. E. Jones.

ERHARDT & LEINER
AUGSBURG, GERMANY—(825)

EXHIBIT: See under Cosa Corp.
IN ATTENDANCE: L. Schmidt

EXTREMULTUS, INC.
LONG ISLAND CITY, N. Y.—(388)

EXHIBIT: Their Extremultus power transmission belting in actual working displays.
IN ATTENDANCE: Kenneth Tsunoda, George L. Pellicer, C. Guy Rivers.

FABRIONICS CORP.
HUNTINGTON, L. I., N.Y. —(18A)

EXHIBIT: Their electronic warp yarn monitor, Una-Mag tension devices; Rothschild Tensotron, Recorder, and F-Meter-Coefficient of friction meter; their "Watchman" time and motion recorder.
IN ATTENDANCE: Vincent E. Lynch, Karl Inderfurth, Wm. Crawley, Olen Marks.

FAFNIR BEARING CO.
NEW BRITAIN, CONN.—(282-283)

EXHIBIT: Ball bearings and ball bearing power transmission units for textile machines.
IN ATTENDANCE: R. W. Powell, H. S. Frisbie, C. A. Berg, R. W. Parkinson, N. B. Bagger, C. W. Jones, Jr., C. M. Thomas, J. V. Lansing, J. P. Golden, R. B. Bramhall, E. M. Hayden, Jr.

FAIRCHILD PUBLICATIONS
NEW YORK, N. Y.—(395-96)

FAMATEX, G.m.b.H.
STUTTGART, GERMANY—(1331-35, 1403-07)

REPRESENTATIVE: Robert Reiner, Inc.
EXHIBIT: The Famatex High Production Single Layer Tenter.
IN ATTENDANCE: H. D. Scheube, H. C. Feustel.

FARMINGDALE MANUFACTURING CORP.
FARMINGDALE, N. Y.—(717-718)

Manufacturers of accessory equipment for looms.

FARVAL CORP., THE
CLEVELAND, OHIO
See Cleveland Worm & Gear Co.

FIFE MANUFACTURING CO.
OKLAHOMA CITY, OKLA.—(655-658)

EXHIBIT: Various components of their complete line of automatic Cloth Guiding equipment, including power units, sensing heads, and guiding mechanisms; actual demonstration of guiding cloth by shifting the let-off roll and of the Kamberoller method of guiding cloth at an intermediate location.
IN ATTENDANCE: Irwin L. Fife, Douglas G. Fife, Donald Paulsen, Norman Lippucci, Warren A. Schilling, Forrest C. Ames, J. Fred Slaughter, C. W. Brown, Bruce A. Feiertag.

FLETCHER WORKS, INC.
PHILADELPHIA, PA.—(547-48, 555-558)

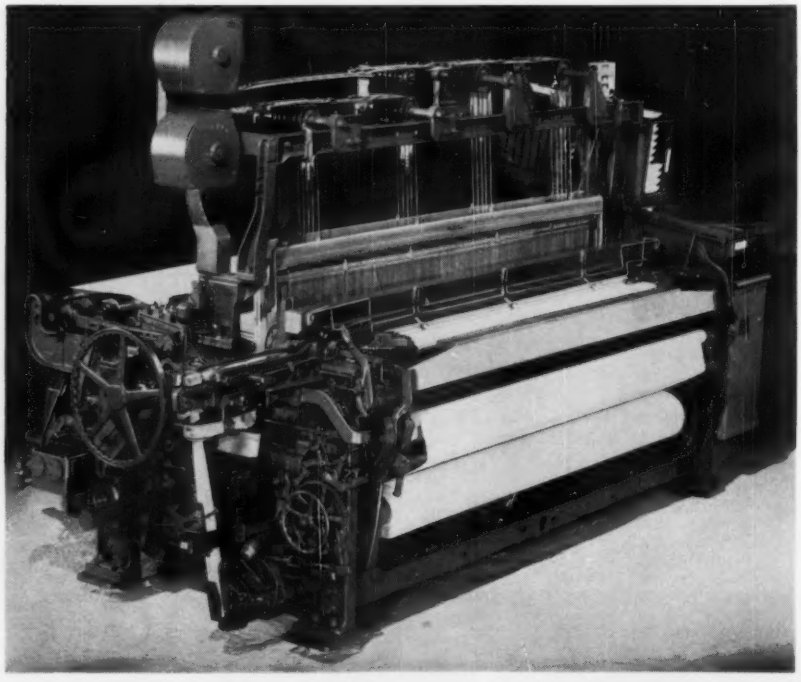
EXHIBIT: Two narrow fabric looms, 2 Duplex twisters, Speedex winder redraw and high-speed skein reel.
IN ATTENDANCE: Edward T. Taws, Edward T. Taws, Jr., Frederic S. Claphorn, Eldon Stowell, Bas Rossell, Charles Manke.

FORTE ENGINEERING CO.
NORWOOD, MASS.—(37)

EXHIBIT: Its line of electronic moisture content analyzers for natural and synthetic fibers.
IN ATTENDANCE: S. Breen, W. Benson, H. R. Zayotti.

FOSTER MACHINE CO.
WESTFIELD, MASS.—(649-53, 664-68)

EXHIBIT: Their cone winding equipment including a brand new design and Lindly's yarn inspector, Electrotense and Dyna-Micro-Gage.
IN ATTENDANCE: E. C. Connor, E. P. Dodge, C. H. Amidon, P. H. Farmer, F. F. Stange, R. B. Kendall, J. B. Davenport, G. W. Mallory, H. E. Swift, C. A. Faunce, E. H. Ely, C. H. Amidon, S. A. Burke, E. Davis, J. A. Moore; from Lindly: Howard Lindeman, Vladimir Mateyka, C. P. Elgin.



Draper's 72" XB Model Loom

FOXBORO CO., THE
FOXBORO, MASS.—(399-401)

EXHIBIT: Their new Model C-HCR CycleLog Controller; new pH Dynalog Recorder; a new Diaphragm Motor for automatic loading; new laboratory Recorder for temperature and dew point; complete instrumentation for automatic chemical dilution; and instruments for stretch recording and control.

IN ATTENDANCE: T. A. Jones, E. R. Tims, S. C. Alexander, A. S. Warren, W. Bishop, G. E. Clark, J. R. Hileman, B. S. Winchester, Jr., A. R. Hicks, C. W. Hartman, R. E. Beers, C. L. Williams, K. L. Barton, Jr., W. D. Carty, J. S. Coulter, R. M. Glass, W. H. Ridley, A. Grant.

FRANKL ASSOCIATES, ERNEST L.
NEW YORK, N. Y.—(1324-1327, 1411-1414)

Representing the following European firms: Sant'Andrea Novara and Mezzera S.p.A. of Italy; Svetema of Sweden; Jakob Jaeggly & Cie., and Jakob Mueller of Switzerland; Tattersall & Holdsworth's of Holland; and Trutzschler & Co. of Germany.

For exhibits and attendance see under these firms.

IN ATTENDANCE: Ernest L. Frankl, Gunther Frankl.

GABB SPECIAL PRODUCTS, INC.
WINDSOR LOCKS, CONN.—(1204)

EXHIBIT: Models of their Shear-Flow Mixers.

IN ATTENDANCE: D. H. Thomson, N. F. Smith, M. W. Black, E. F. Ewing, H. E. Whitaker, V. A. Jones, and G. Howel.

GASTON COUNTY DYEING MACHINE CO.
STANLEY, N.C.—(638-639)

EXHIBIT: Laboratory wet processing equipment and parts of their large production equipment, including new developments in the hydraulic pumping system. Also photos and information on the Avesta rapid dryer and the semi-rapid recirculating type dryer.

IN ATTENDANCE: George H. Hacker, Walter J. Newcomb, Ray P. Craig, Gordon Hacker, A. P. March, J. R. Angel, A. R. Breen, A. R. Webster, G. A. Rogers.

GENERAL ELECTRIC CO.
SCHENECTADY, N. Y.—(408-412)

EXHIBIT: Polydyne Drive; Kinatrol, a new eddy-current coupling; Kinamatic and Parmatic speed variators;

IN ATTENDANCE: H. C. Gaitskill, J. W. Shaw, E. E. Gray.

GENERAL MOTORS CORP.,
NEW DEPARTURE DIV.
See New Departure

GENERAL PLASTICS CORP.
PATERSON, N. J.—(1216)

EXHIBIT: Teflon coated dry cans, thermo panels and other pieces of equipment; also new textile finishes developed by General Dispersions, Inc.

IN ATTENDANCE: R. Goldsmith, P. Hess, J. Simon, E. W. Davidson.

GENERAL RADIO CO.,
WEST CONCORD, MASS.—(710A)

EXHIBIT: Their new Type 1531-A Strobotac for measuring the speed of textile machines and for watching their parts in operation.

IN ATTENDANCE: W. R. Thurston, M. J. Fitzmorris, H. H. Dawes.

GESSNER CO., DAVID
WORCESTER, MASS.—(246-251)

EXHIBIT: Their 30 Roll Hi Torc Napper and their new Shearing Machine.

IN ATTENDANCE: John P. Franklin, Theodore A. Dourdeville, Richard C. Franklin, Richard A. Herard.

GILBOS, ATELIERS DE CONSTRUCTION
HENDERSON-ALOST, BELGIUM—(854-856)

Represented by Stellamcor, Inc.

EXHIBIT: High-speed Roll Winding Machine Type Roll 10 producing super-sized cross-wound packages; Cross-Winder U.C. for winding from skeins to cones.

IN ATTENDANCE: Mr. and Mrs. Gilbos.

GOULSTON CO., GEORGE A.
BOSTON, MASS.—(642-643)

EXHIBIT: Samples of wool oil and fiber lubricants, anti-static agents, new lubricant for the carpet industry.

IN ATTENDANCE: George A. Goulston, Ben Goulston, Arnold Goulston, Harold Miller, Aaron Winograd.

GPE CONTROLS, INC.
CHICAGO, ILL.—(750)

EXHIBIT: Web guiding and web measuring equipment in operation.

IN ATTENDANCE: Earl Schroeder, Joe Deering, Pete Sorsen, Dave Digel.

GRINNELL CORP.
PROVIDENCE, R. I.—(51-56)

With American Moistening Co. which see.

HALTON'S SONS, THOMAS
PHILADELPHIA, PA.—(711-712)

EXHIBIT: Model 1304 double lift, double cylinder, independent cylinder motion, Jacquard Weaving Machine; Model 400 double lift, single cylinder, chain drive Jacquard, running on a test stand; new parts and additions to Jacquards.

IN ATTENDANCE: Murray Halton, Thomas L. Halton, Francis J. Shannon, Sr., Francis J. Shannon, Jr., Everett Strange.

General Radio Co.'s Strobotac as used with loom operations.

HANSEATISCHE MOTOREN-GESELLSCHAFT
HAMBURG, GERMANY—(1032-33)

EXHIBIT: Their HMG-Gill with automatic can delivery and regulator; also several types of cans and balling heads.

IN ATTENDANCE: See Texplant Corp., their U. S. representative.

HARNISCH
KIRCHHEIM-TECK, GERMANY—(663)

With Lenkotex

Accessory equipment for looms.

HAYES INDUSTRIES INC.
JACKSON, MICH.—(413-414)

EXHIBIT: Section Beams and Tricot Spools of various sizes for all fibers.

IN ATTENDANCE: Geo. Barrie, Richard Richards, Warren Sharp, J. Paul Laird, Dave Sellars.

HAYSSEN MANUFACTURING CO.
SHEBOYGAN, WIS.—(474-475)

Manufacturers of auxiliary equipment

HEANY INDUSTRIAL CERAMIC CORP.
NEW HAVEN, CONN.—(7)

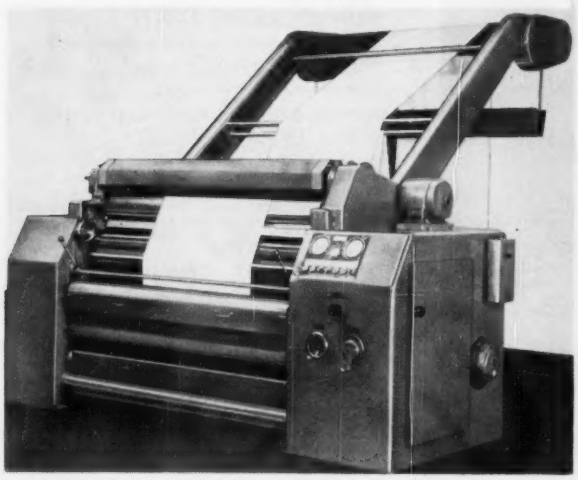
EXHIBIT: Their Heanium Thread Guides and Tension Devices.

IN ATTENDANCE: A. O. Pieper, Herman Boveri, R. L. Carroll, R. P. Bennett.

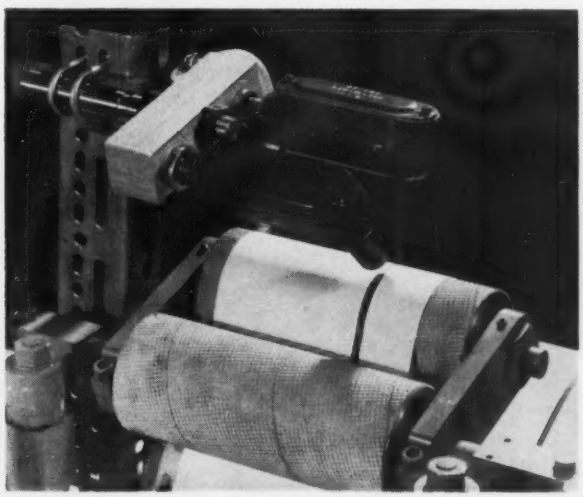
HENGSTLER K-G, J.
ALDINGEN, GERMANY—(929)

Manufacturers of accessory equipment, Counters.

Gessner's new Shearing Machine



GPE Controls' Web Guiding equipment



HENRIKSEN, VALD, I/S
SOEBORG, DENMARK—(1227)
Dyeing Equipment.
With Edda International.

HERGERT MACHINE CO., HEINZ
FRANKFURT, GERMANY
See Woolart Mills

HERR MANUFACTURING CO., INC.
BUFFALO, N. Y.—(69-70)
EXHIBIT: Complete line of their latest type "M" conical Rings and Holders, featuring "Seam Lubrication"; Herr Flyers for all types of yarns for uptwisting.
IN ATTENDANCE: Hyatt B. Atwood, Robert M. Leach, William W. Woodard, James McLean, William K. Anderson, Jr.

HERZOG-AUERBACH & CO.
OLDENBURG, GERMANY—
(950-951, 1007-1008)
Represented by Vanderburgh & Co., Inc., New York, N. Y.
EXHIBIT: Complete line of high-speed Braiding Machines; also heavy Ropes and Hawsers.
IN ATTENDANCE: A. G. Herzog, K. G. Richter, R. Wiemer, H. H. Quell.

HIROSHIMA PRECISION MACHINE WKS.
HIROSHIMA, JAPAN—(1034)
Spinning equipment for worsteds.
With Mitsubishi Int. Corp.

HOBBS MANUFACTURING CO.
WORCESTER, MASS.—(552)
Manufacturers of Winding machines and auxiliary equipment.

HOLDSWORTH MANUFACTURING CO., INC.
PAWTUCKET, R. I.—(171-182)
EXHIBIT: Latest design high-speed Super Gills; the same with automatic Ball Doffing unit and with Autoleveler device installed. New high production, high speed Tape Condenser for woolen cards, as manufactured by Platt Bros., England.
IN ATTENDANCE: John L. Coon, Walter P. Rutley, Walter E. Stearns, Charles F. Curran, Jr., Harold Kazarian, A. Wilbut, Hayden, and Douglas D. MacDonald. Also B. A. P. Dobson, Irvin Marsden and Eugene Bramhall of Platt Bros.

HOOD CO., R. H.
PHILADELPHIA, PA.—(350-351)
EXHIBIT: Hood Open Doubler; special process evenized leather Aprons; Coilers; textile Combing equipment.
IN ATTENDANCE: Henry G. Hood, Robert H. Hood II, W. F. Gill.

HOWA MACHINERY, LTD.
OSAKA, JAPAN—(1034)
Preparatory Machinery.
With Mitsubishi Int. Corp.

HOWARD BROTHERS MANUFACTURING CO.
WORCESTER, MASS.—(379-380)
EXHIBIT: Card Clothing and related products.
IN ATTENDANCE: Harry C. Coley, Neal A. Mitchell, Charles A. Haynes, Warren Butterworth, Alfred Govin, T. J. Jackson, Hugh Miller, Dederick Spencer, Harold Suggs.

HUDSON AUTOMATIC MACHINE & TOOL CO.
UNION CITY, N. J.—(41)
EXHIBIT: Two new models of Projectina, a testing instrument for the textile industry, combining projector, comparator, and microscope.
IN ATTENDANCE: C. A. Hepp, H. Peter, H. Koerner.

HUNT MACHINE CO., RODNEY
ORANGE, MASS.—(191-196)
EXHIBIT: Newly designed rapid Bleaching Range for continuous open width bleaching; new Padder incorporating new roll and pressure system for high extraction; newly designed Spreader Roll incorporating a new principle of operation.
IN ATTENDANCE: J. Rembe, M. G. Hopkins, D. A. Kuniholm, H. L. Daub, V. L. Wilkinson, John Hayes, Lawson Hayes, R. F. Powers, H. G. Thompson.

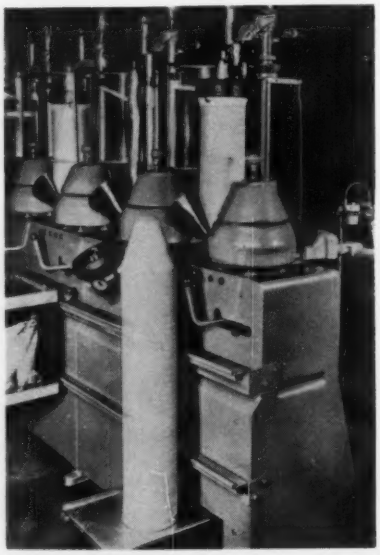
HUNTER FIBER MACHINE CO.
LOS ANGELES, CAL.—(258)
With James Hunter Machine Co.

HUNTER, INC., JAMES
GREENVILLE, S. C.
together with
HUNTER MACHINE CO., JAMES
NORTH ADAMS, MASS.—
(120-122, 252-265)
EXHIBIT: Fiber Meter Blending Equipment; Imperial Card and Garnett Feed; 30" x 60" Single Doffer Garnett; 67" x 60" Model 7A Huntermatic Cross Lapper; Pneumatic Compressor Head with Floor Apron; Wind-up Device; Model 9 65" Hunter Fiber-Locker; Whirlaway Expanders; DAM Rhodiaceta Thermotest; Hunter Psychrometer; Random Web Former; automatic multi-tufted Bale Blender; continuous high pressure Wet Processing Machine.
IN ATTENDANCE: James H. Hunter, Richard A. Hunter, William F. Leineweber, A. V. Moody, H. F. Creegan, R. L. Plumb, Ernest G. Cannity, Jr.

HYATT BEARINGS DIV., GENERAL MOTORS CORP.
HARRISON, N. J.—(275-276)
EXHIBIT: Full line of Bearings, with cutaway sections of textile machines to show how anti-friction bearings improve operating efficiency.
IN ATTENDANCE: G. R. Gilmartin, G. B. Baxley, E. P. O'Neill, T. E. Hustead, E. Maurushat, M. E. Otterbein, C. C. Wardell.

INDUSTRIAL DRYER CORP.
STAMFORD, CONN.—(680-681)
EXHIBIT: Their H-W Conditioner for conditioning and twist setting of fibers.
IN ATTENDANCE: P. H. Friend, J. R. Tutt, R. G. Leininger, F. W. Caesar.

INTERNATIONAL SALES MANAGEMENT CO.
CHARLOTTE, N. C.—(1531-32)
EXHIBIT: Model of Fawcett automatic Fiber Baling Press. Reception area for British principals.
IN ATTENDANCE: Philip R. Petersen.



Delerue Rocket Winder

INTERSTATE TEXTILE EQUIPMENT CO., INC.
CHARLOTTE, N. C.—(1535-1537)
EXHIBIT: Rocket Winder, manufactured by R. Delerue & Cie. of Roubaix, France.
IN ATTENDANCE: Morris Speitzman, M. P. DeLeo, Leon, Kimmel.

IZUMI BOBBIN CO.
OSAKA, JAPAN—(1148)
Accessory spinning equipment.
With Rudnick

JAEGGLI & CIE., JAKOB
WINTERTHUR, SWITZERLAND—(1411)
Represented by Ernest L. Frankl Associates, New York, N. Y.
EXHIBIT: Hydraulic Beam Jacks; models blueprints and illustrations of their Skein Mercerizing Machines and installations including Coloras 16 Neutralizing Machine.

JOHNSON CORP., THE
THREE RIVERS, MICH.—(392-393)
EXHIBIT: Their Rotary Pressure Joints, Syphon Elbows, Solenoid operated Valves, instant Steam Water Heater, Compressed Air Separators and Aftercoolers.
IN ATTENDANCE: R. W. Gotschall, T. O. Monroe, W. R. Monroe, J. E. Dal Ponte.

JOHNSON SERVICE CO.
MILWAUKEE, WIS.—(88)
Manufacturers of accessory equipment.

JOMAC, INC.
PHILADELPHIA, PA.—(43-44)
EXHIBIT: Industrial textile Rolls, and samples of raw materials which are compounded to obtain the finished rubber polymer.
IN ATTENDANCE: Howard E. Eldridge, Jack Evo, Eric Engdahl, Dick Hughes, Charles Gibb, Frank McLaughlin, Jack Seeburger, Leland N. Gibbs, Jr.

JOURNAL OF COMMERCE
NEW YORK, N. Y.—(807)

JUNGFRAU, INC.
NEW YORK, N. Y.—(1208)
EXHIBIT: Information on the Buser Automatic Screen Printing Machine and Luescher Bros. Screen Making Equipment.
IN ATTENDANCE: Douglas Hardy, Mario Kruger, C. D. Hardy, Jr.

JURGENS, ALBERT
EMSDETTEN, GERMANY—(820)
PRODUCT: Weaving machinery.

KANEGAFUCHI MACHINE CO.
OSAKA, JAPAN—(1148-1151)
Representatives: Edward S. Rudnick, New Bedford, Mass.
EXHIBIT: First showing in the U. S. of their Auto-Doffer in operation on a spinning frame.
IN ATTENDANCE: T. Fujiwara, Edward S. Rudnick, and others.

KEARNY MANUFACTURING CO., INC.
KEARNY, N. J.—(342-343, 358-359)
Manufacturers of auxiliary equipment for winders.

KENNETT EQUIPMENT & MACHINERY CO.
KENNETT SQUARE, PA.—(11A)
EXHIBIT: Material Handling Equipment.
IN ATTENDANCE: James T. Ferri, M. C. Seldomridge, James F. Hearn, O. B. Morman, John Geuther.

KENYON & SONS, INC., WILLIAM
PERTH AMBOY, N. J.—(79)
EXHIBIT: Kennylbond nylon Tapes and Bonding Machines; Kenbrakes; and Kenyon Card Drives.
IN ATTENDANCE: O. E. Butcher, G. A. Clark, C. Kowtna.

KETTLING & BRAUN
MINDEN, WEST GERMANY—(833)
Represented by Cosa Corp. (See under this firm)

KIDDE TEXTILE MACHINERY CORP.
BLOOMFIELD, N. J.—(478-481)
EXHIBIT: Model 1946 Tricot-type interchangeable Warper for 32" diameter by 42" and 50" long spools; Model 144B Tricot-type Warper for 21 x 21 spools; Model 146B Yarn Storage Accumulator;

Model 158A heavy duty Beamer; and 60-end demonstration unit of Warping Creel.
IN ATTENDANCE: W. J. Behr, H. W. Ruddick, J. H. Fleming, E. L. Herbert, D. W. McCoy, A. W. Post.

KIRKMAN & DIXON MACHINERY CO.
GREENWOOD, S. C.—(277)
Preparatory and waste machinery.

KLAUDER WELDON GILES MACHINE CO.
PHILADELPHIA, PA.—(707)

KLUTTZ RINGS, INC.
GASTONIA, N.C.—(754)
Accessories and equipment for spinning.

KNOTEX-MASCHINENBAU, G.m.b.H.
AUGSBURG, GERMANY—(900-902)
EXHIBIT: Their Universal Warp Tying Machine Model "Knotex".
IN ATTENDANCE: H. Kraus.

KUSTERS, EDUARD
KREFELD, GERMANY—(846-849, 911-914)
EXHIBIT: Aquaroll Water Mangle Type 75; Vibrotex Continuous Backgray Washing Machine Type 78.
IN ATTENDANCE: Eduard Kusters. Wilhelm Laudenbach, Ernst J. Hannen, Hans Kutz.

LAMBERT S.P.R.L., ETS., O.
BELGIUM—(1432)
Manufacturers of Winding machinery

LANE & BROS., INC., W. T.
POUGHKEEPSIE, N. Y.—(387)
Accessory equipment for materials handling.

LANSDOWNE STEEL & IRON CO.
MORTON, PA.—(715-716)
Weaving machinery.

LEBOCEY NEEDLE CO.
TROYES, FRANCE—(1401)
Accessory for knitting machinery.

LEESONA CORP.
PROVIDENCE, R. I. (197-211, 310-321)
EXHIBIT: Unifil Loom Winders in operation on X2 and XD looms; Twister Coners; Take-Up Machinery; Roto-Coner Drum Winder; also instruments for testing yarns during production.
IN ATTENDANCE: F. P. Barrie, F. J. Barrows, J. Bowler, J. R. Breen, J. A. Freed, K. H. Gibson, W. V. Goodhue, Robert Leeson, G. Mitchell, E. C. Parish, Robert S. Pennock, W. J. Quinn, C. E. Sullivan, R. H. Wallace. J. V. Keith, H. R. Kennedy, H. D. Kernan, R. Waugh, A. D. Weston, J. J. White, R. Aghion, F. Ernoult, L. French, R. P. Newell, H. Richardson, and J. A. Nasmith, representing Leesona Holt, Ltd.

LENKOTEX CO.
NEW YORK, N. Y.—(663)
EXHIBIT: Roller bearing Spindles; spinning and twisting Rings; paper Tubes and Bobbins; Temple Rolls and Rings; plastic Pickers; Shuttle Truing Machine; stroboscopic measuring and process observation instrument Touro-Strob; and plastic Pin Strips for drawing frames.
IN ATTENDANCE: V. Lindner.

LINCOLN ENGINEERING CO.
ST. LOUIS, MO.—(307-309)
EXHIBIT: Manual and power-operated Lubricant application equipment; automatic centralized lubricating equipment installed on looms and spinning frames; Air Compressors; equipment to be shown in operation.
IN ATTENDANCE: Robert E. Crean, Joseph B. Benskin, Ben S. Davis, Robert Doss, J. H. Gaul, E. C. Adams.

LINDLY & CO., INC.
MINEOLA, N. Y.—(649)
With Foster Machine Co.

LINK-BELT CO.
CHICAGO, ILL.—(94-98)
EXHIBIT: Feature of the display will be their new RS P. I. V. Variable Speed Drive and the new Motorized Differential P. I. V.; in addition typical enclosed gear drives, their self-aligning bearing line, and typical silent and roller Chain Drives will be shown.
IN ATTENDANCE: Members of the engineering staff.

LIVERMORE CORP., H. F.
ALLSTON, MASS.—(322-325)
Accessory parts for weaving machinery.

LOCKWOOD-GREENE ENGINEERING, INC.
NEW YORK, N. Y.—(86-87)
No special exhibit. Informative brochures on the company's operations.
IN ATTENDANCE: S. B. Lincoln, S. B. Roberts, H. M. Rogers, Jr., J. Z. Robinette, T. O. Ott, W. R. Simpson.

LOWELL INDUSTRIES, INC.
LOWELL, MASS.—(322)
Accessory Equipment.

LOWELL TECHNOLOGICAL INST.
LOWELL, MASS.—(817)
Textile Education.

LUESCHER BROS. see Jungfrau, Inc.

McBRIDE CO. INC., EDWARD J.
PHILADELPHIA, PA.—(1152, 1203)
EXHIBIT: Section of high speed Warping Magazine Creel; section of carpet Tufting and Knitting Creel.
IN ATTENDANCE: Edward J. McBride, Walter F. Kraemer.

MAAG BROS.
KUSNACHT, SWITZERLAND—(714)
With Trumeter Co. which see.

MACBETH DAYLIGHTING CORP.
NEWBURGH, N. Y.—(389)
EXHIBIT: Complete line of color-matching Skylite units and Examolite fixtures for color shading, grading and flaw detection.
IN ATTENDANCE: Robert E. Meeker, Andrew Moore.

MACHINECRAFT, INC. see Cotton-McCauley

MAIN & SONS, INC., ROBERT A.
WYCOFF, N. J.—(679)
EXHIBIT: Apron Conveyor Slats and new Forged Chain used with new synthetic wet application slats.
IN ATTENDANCE: Robert A. Main, Charles A. Brautigam, Sutton M. Ebert.

MANN MASCHINENFABRIK. see Lenkotex

MARLIN-ROCKWELL CORP.
JAMESTOWN, N. Y.—(606-607)
EXHIBIT: MRC Ballbearings as used in the textile industry, including their Synthe-Seal factory prelubricated bearings, their Lubri-Seal power transmission bearings, pillow blocks and flange units, and integral shaft spindle bearings.
IN ATTENDANCE: M. T. Denslow, C. O. Peterson, W. E. Broadhead, J. C. Mitchell, W. B. Layman, A. C. Turco, J. H. Pitman.

MARSHALL & WILLIAMS CORP.
PROVIDENCE, R. I.—(559-563, 574-578)
EXHIBIT: Tenter Frames and Tenter Clips; Tenter Frame Drive Units; also tensionless Batchers; constant tension Winders; swing Plaiters; let-off Stands; Over feed equipment; Selvage Uncurlers; and Pin Plates.
IN ATTENDANCE: John C. Nash, Fred H. Land, James A. Love, Albert J. Marshall, Edward E. Ford, William C. Brown, Fred Hyatt, William Tomlinson; also staff members of their Canadian representative Rudel Machinery Co. Ltd.

MASCHINENFABRIK ARBACH
REUTLINGEN, GERMANY—(825)
See under Cosa Corp.

MATRIX CONTROLS CO., INC.
SOMERVILLE, N. J.—(294)
Auxiliary equipment; finishing, measuring, inspection and laboratory instruments.

MAXBO. see Edda International

MAYER & CO. see Lenkotex

MENNEGATTO. see Atkinson, Haserick

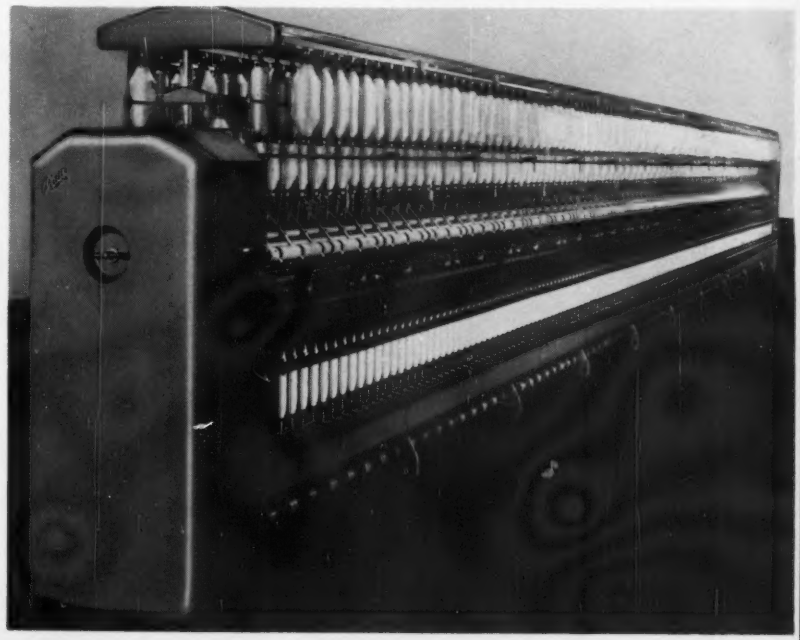
METTLER INSTRUMENT CORP.
HIGHTSTOWN, N. J.—(381)
EXHIBIT: Precision Weighing equipment including specific models for the textile industry.
IN ATTENDANCE: Robert Moeller, Neal L. Cooper, David L. Jones, Howard B. Pettit, John O'Connor.

METTLER'S SONS LTD., FR.
ARTH, SWITZERLAND—(839)
With Cosa Corp. which see.

MEZZERA, S.p.A.
MILANO, ITALY—(1412)
Represented by Ernest L. Frankl Associates.
EXHIBIT: Their automatic Skein Dyeing Machine with four arms and information on their Dye Jigs, Rope Washing Machines, etc.
IN ATTENDANCE: Mr. Pinter.

MILL DEVICES CO.
GASTONIA, N. C.—(39)
Auxiliary equipment for winding, spinning and weaving.

MILTON MACHINE WORKS, INC.
MILTON, PA.—(386)
EXHIBIT: Warp Beams for broad, narrow fabric, ribbon, velvet, and carpet looms; selvage Spools and special beams made of aluminum.
IN ATTENDANCE: J. Stanley Billig, John B. McMurtrie, Charles J. Anchor, H. I. Shultz, Jr.



The new Platt MR.4 Narrow Ring Spinning Frame.

MINNEAPOLIS-HONEYWELL REGULATOR CO.
PHILADELPHIA, PA.—(286-287)

EXHIBIT: New Moist-O-Graph system; low range Radiamatic; Electrik Tel-O-Set system; pneumatic Tel-O-Set system; Control Valves; Data Handling system; Versa-Tran electronic liquid level controller.
IN ATTENDANCE: Robert D. Clarke, Anthony F. Day, Ed Klein, Jack Horner, Russell Jacobson, Connie Miller, Harry McCormick, William Munz, Ralph Fishburn, Joseph Kontuly, Vic Zelov, Bob O'Reilly, H. K. Ball, Win Boetcher.

MITSUBISHI INTERNATIONAL
NEW YORK, N. Y.—(1034-36, 1122-26)

They represent: Hiroshima, Howa, & Mitsubishi Nippon.

EXHIBIT: High speed Drawing Frame; Pot Type Air Spinning Frame for Worsted Yarn.
IN ATTENDANCE: S. Yamashita, Edwin Leonoro, T. Nagano, Shozo Noda, Tutomu Ito, Terukazu Kuga, Akira Kato.

MITSUI & CO. see Rudnick

MODERN TEXTILES MAGAZINE
NEW YORK, N. Y.—(306)

MORRISON MACHINE CO.
PATERSON, N. J.—(507-515, 518-526)

Also Morrison Textile Machinery Co., Fort Lawn, S. C.

EXHIBIT: Hydraulic Calender 40 ton, 60" face, 3 roll; Dye Padder airset, 15 ton, 70" face, 3 roll; Standard Finishing Tenter; Serpentine Washer, 5 compartment, 60" face.
IN ATTENDANCE: John C. Morrison, McSpadden, Scantland and Hunter, rep., A. C. Freeman, A. V. Caporossi, John Kreeft.

MOUNT HOPE MACHINERY CO.
TAUNTON, MASS.—(426-427A)

EXHIBIT: Their new Skew-Liner; new automatic Tension Control; Free-Wheeling Expanders; Floating Roll Guides; Precision Guiders; Slack Selvage Eliminators; Selvage Uncurlers; Web Controllers; Cloth Opening Equipment; Cloth Handling Devices.
IN ATTENDANCE: J. D. Robertson, John Robertson, William Gallahue, Sam Moffitt, Homi Kapadia.

MUELLER, JAKOB
FRICK, SWITZERLAND—(1325)

Represented by Ernest L. Frankl.

EXHIBIT: Models of their Narrow Fabric Shuttle Looms and their Shuttleless Narrow Fabric Rotor Looms; also complete line of fabrics produced on these.
IN ATTENDANCE: Jakob Mueller.

MUELLER MASCHINENFABRIK, FRANZ
M. GLADBACH, GERMANY—(1037-39, 1119-21)

EXHIBIT: 36-Roller Double-Action Napper; Bitroma Yarn Winder for winding cones and dye packages.
IN ATTENDANCE: Karl August Mueller, August Hoverath, Perry M. Parrott, Joe Ballentine, Allan Schnitzer, Herb Akerblom.

NATIONAL DRYING MACHINERY CO., THE
PHILADELPHIA, PA.—(74-75)

EXHIBIT: Construction details of their structural members, insulated panels, seal-type doors; air control devices; air turning vanes; adjustable pitch circulating fan; information on the principle of their hydraulic drive tension control equipment.
IN ATTENDANCE: Ralph C. Parkes, David A. Colker, George J. Schillinger, Jr., John J. Nihill, Harold E. Swanson, John Hayes, Lawson Hayes, B. M. Jones.

NATIONAL RING TRAVELER CO.
PAWTUCKET, R. I.—(89-90)

EXHIBIT: Representative samples of many styles and sizes of Ring Travelers, featuring their Plated or Special Finished Travelers.
IN ATTENDANCE: Frederic L. Chase, Jr., Norman A. Jerome, James T. Greenlaw, L. E. Taylor, H. B. Askew, T. Hill Ballard, Frank S. Beacham, Charles L. Fitts.

NATIONAL STARCH & CHEMICAL CORP.
NEW YORK, N. Y.—(713)

Supplies for sizing, printing and finishing.

NATIONAL VULCANIZED FIBRE CO.
WILMINGTON, DEL.—(1231-1234)

EXHIBIT: Combined display of Kennett materials handling receptacles and Lestershire spools and bobbins, featuring their new Lock-Eze Jack Spool and new large package Twister Bobbin with new Lock-Tite construction.
IN ATTENDANCE: E. B. Burnley, G. M. Hutchinson, L. J. Phelps, J. C. Davis, D. E. Williams, Jr., Will Best Plowden, J. G. Beasten, A. B. Matthews, P. H. Ahrens, G. M. Lang.

NEW DEPARTURE, DIV. GENERAL MOTORS CORP.
BRISTOL, CONN.—(127-128)

EXHIBIT: Comprehensive assortment of various Ball Bearings as applied to textile machine components.
IN ATTENDANCE: J. J. Creamer, W. S. Shepherd, R. E. Honeycutt, R. D. Brouwer, E. H. Case, T. H. Adams, Jr., C. T. Bragdon, A. C. Lormore.

NEWMARK LTD., LOUIS
LONDON, ENGLAND—(1336-38)

Represented by Stellamcor, Inc.

EXHIBIT: Electronic quality and production control instruments, shown for the first time in this country and including Warp Tension Balance, Vibrascope, Electronic bridge Amplifier, Strainometer, Yarn Tension Transducer, Yarn Filament Counter, and Fiber Diagram Machine.
IN ATTENDANCE: W. T. Cowhig of the British Rayon Research Association, and members of Stellamcor staff.

NIPPON CARD CLOTHING CO. see Rudnick

NIPPON SPINDLE CO. see Rudnick

NISSEN, JR. CO., JOHN P.
GLENSIDE, PA.—(759)

EXHIBIT: Writing Tubes of dye-resist and bleach-proof inks for permanent identification of cloth.
IN ATTENDANCE: Chandler Ford, M. A. High, 3rd.

NORCROSS CORP.
NEWTON, MASS.—(469)

EXHIBIT: Their Sizeometer for automatic size preparation; line of Viscometers for process control.
IN ATTENDANCE: Austin S. Norcross, Robert S. Davis, Jr., Robert A. Norcross.

NORTH AMERICAN MANUFACTURING CO., THE
CLEVELAND, OHIO—(1402)

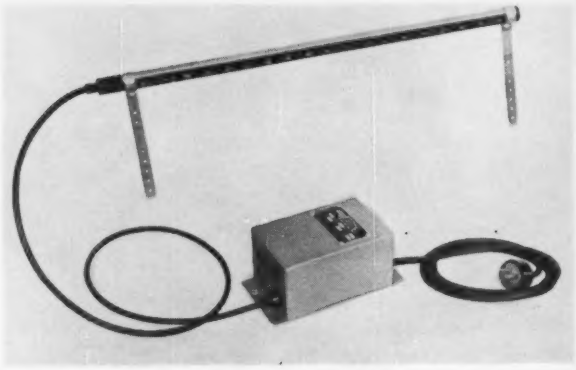
EXHIBIT: Operating model of process line showing automatic Web-Guiding at let-off and rewind stands. Non-contact edge detection, both pneumatic and photo-electric types.
IN ATTENDANCE: Hugh N. Helm, R. J. Matteson, J. R. Partin, L. E. Stern.

NORTH CAROLINA STATE COLLEGE—SCHOOL OF TEXTILES
RALEIGH, N. C.—(100, 1202)

EXHIBIT: The nature and advantages of modern textile education will be stressed and research accomplishments and activities of the School's Textile Research Center shown and outlined.
IN ATTENDANCE: M. E. Campbell, Dean, E. B. Grover, W. A. Newell and other

O-M SPINNING MACHINE MFG. CO.
OSAKA, JAPAN—(1148-1151)

Represented by Edward S. Rudnick



Portland Co.'s "Statomatic" Chapman Static Eliminator.

EXHIBIT: OM-S Sliver-to-Yarn Spinning Frames, O-M High Speed Drawing Frame; and their "Ever-Even" automatic feed-back control for drawing frames and pin drafters.
IN ATTENDANCE: I. Uchibe and members of the Rudnick staff.

PANAMERICAN PUBLISHING CO.
NEW YORK, N. Y.—(428-429)

PARAMOUNT TEXTILE MACHINERY CO.
CHICAGO, ILL.—(1145-1147)

EXHIBIT: Their Vacuum Steam Conditioner for packages of natural and synthetic yarns and combinations thereof.
IN ATTENDANCE: William Pope, J. C. Fenley, Paul Paulsen, W. H. Albertson, O. A. Siegel.

PARKINSON MFG. CO., INC., EDWARD
ESMOND, R. I.—(609)

EXHIBIT: Tenter Clips; Cloth Guiders; hydraulic Tension Device; automatic Cut-off Winder Mark II, photos and literature of special machinery.
IN ATTENDANCE: Alan F. Metzger, Harry T. Prince, Robert H. Scott, Henry E. Klepadlo.

PARKS-CRAMER CO.
FITCHBURG, MASS.—(564-573)

EXHIBIT: Complete line of Traveling Cleaner Equipment; SpinSaVac End Collection; SpinSaCreel; and their Certified Climate Systems for humidification and cooling.
IN ATTENDANCE: M. Ford, C. D. Lee, J. Nesmith, L. R. Sibley, W. B. Granger, J. C. Kelly, W. B. Walker, W. J. Buck, E. F. Kulp, C. E. Ware, W. W. Hewett, A. C. Buck, D. S. Gilchrest, G. F. Kellogg, E. H. Harding.

PARKS & WOOLSON MACHINE CO.

See Riggs & Lombard

PARROTT & BALLENTINE TEXTILE EQUIPMENT CO.
GREENVILLE, S. C.—(1037-1039, 1119-1121)

Representatives of Franz Muller Maschinenfabrik.

PATTERSON-KELLEY CO., INC., THE
EAST STROUDSBURG—(111-112)

EXHIBIT: Plastic working model of their hot water Heating System for laundries.
IN ATTENDANCE: James J. Coleman Joseph Peters, Jack Clark, George Adlam.

PENICK & FORD, LTD., INC.
ATLANTA, GA.—(682)

EXHIBIT: Starches and Starch Derivatives from corn as applied to warp sizing and finishing of textiles.
IN ATTENDANCE: O. H. Tousey, D. O. O'Connor, P. G. Wear, G. M. Anderson, J. R. Heard, J. P. Holland, G. C. Henry, W. J. Kirby, T. H. Nelson, D. K. Smith.

PERKINS & SON, INC., B. F.
HOLYOKE, MASS.—(163-164, 169-170)

EXHIBIT: Two-Roll Hydraulic Schreiner Calender; Let-Off; Wind-Up; Hydraulic Unit; Mullen Testers; Batch Counter; Seam Detector; Shrink and Stretch Meter.

IN ATTENDANCE: J. L. Perkins, Jr., B. F. Perkins, Mrs. Marion Perkins Duryea, B. P. Astley, Eric B. Norman, Kurt Zimmerli, C. J. Stevens, Harold Ball, W. Greenwood.

PICANOL S. A., METIERS AUTOMATIQUES
YPRES, BELGIUM—(952-955, 1003-1006)

Weaving machinery.

PLATT BROS. (SALES) LTD.
OLDHAM, ENGLAND

Represented by Atkinson, Haserick

EXHIBIT: (Booth 943-947, 1011-1015) Hartford Comber; M.D.F. 5 Draw Frame; M.S. 3 Speed Frame with Gantry Creel; M.R. 4 Ring Frame with SpinSaVac. (Booth 171-182) Woolen Tape Condenser. (Booth 818-819) Revolving Flat Card; Pneumatic Lap Compressor.
IN ATTENDANCE: S. C. Seward, B. A. P. Dobson, Roy Whittaker, Irvin Marsden.

PLUTTE, KOECKE & CO.
WUPPERTHAL-BARMEN, GERMANY—
(948-949, 1009-1010)

Represented by Atkinson, Haserick

EXHIBIT: Hacoba Narrow Fabric and Braider high speed automatic Winding equipment.
IN ATTENDANCE: Dieter Rosenkranz, K. Fassnacht, Norman J. McDonald, Richard P. Kinsman, Maurice J. Lacey, and members of Atkinson staff.

PNEUMAFIL CORP.
CHARLOTTE, N. C.—(761-764)

EXHIBIT: The latest Model C-12 unit of their Vacuum End Collectors; Pneumastop roving frame stop motion; Electrofil roving frame stop motion.
IN ATTENDANCE: C. R. Harris, J. W. Barr, M. E. Herdon, G. E. Archer, W. W. Lloyd, D. J. Thorp, G. C. Fryer.

PORTLAND CO., THE
PORTLAND, MAINE—(89A)

EXHIBIT: Working model of its Chapman Static Eliminator as well as other models for specific purposes.
IN ATTENDANCE: Frank E. Hanscom, Donald E. Hardy, John J. Sapp, and representatives of Louis B. Batson Co. and Mathews Equipment Co.

PRESIN CO.
SANTA MONICA, CALIF.—(65)

EXHIBIT: Photoelectric equipment and Counting devices.
IN ATTENDANCE: John B. Lightstone, Michael S. Coldwell, and members of the staff of Holdsworth & Co.

PROCTOR & SCHWARTZ, INC.
PHILADELPHIA, PA.—(579-584, 591-602)

EXHIBIT: New Finishing Range consisting of Padder, Float Dryer, Tenter Dryer, and Rotary Polymerizer; working demonstrations of the Proctor-Form, the Proctor Controlling Weigh Belt; the Proctor Fiber Blending Feed.
IN ATTENDANCE: W. W. Sibson, Jr., J. P. Wilson, C. W. Schwartz, IV, A. G. Blank, T. H. Wentz, E. W. Gehrung, W. A. Dickinson, Jr., R. E. Fink, L. M. Christianson, R. L. Hendricks, D. D. Cunningham, J. P. Christ. Also Dr. Ing. Meier-Windhorst of Artos Maschinenbau, Germany, and John Dalglish of John Dalglish & Sons, Scotland, Proctor's affiliates.

QUALITEX
ENSCHEDE, HOLLAND—
(1316-17, 1221-22)

EXHIBIT: Their new electronic yarn tester "Qualitester" and slubcatcher "Qualitex".
IN ATTENDANCE: H. Glastra, Mr. Thomasson, G. H. Nordholt.

REED CO., ROBERT C.
HARRISON, N.J.—(277)

EXHIBIT: Waste machines; Kirschner Beaters; special Lagging on #6 Picker; jute and flax card covering in aluminum staves; all types of textile Pins, Staves and Lagging.
IN ATTENDANCE: W. E. Macpherson, L. Bock.

REINER, INC., ROBERT
WEEHAWKEN, N. J.—
(1305-07, 1331-35, 1403-07)

EXHIBIT: As representatives of various German firms, they are showing a Famatex High Production Single Layer Tenter; a Conorapid Precision Cross-Winder; and a Schaffhouse Rubber Thread Covering Machine.
IN ATTENDANCE: K. T. Marx of Reiner, H. D. Scheube and H. C. Feustel of Famatex, J. A. Vollmann and W. Horn of Conorapid, Mr. Wyss and A. Schaufelberger of Schaffhouse.

REPUBLIC STEEL CORP.
CLEVELAND, OHIO—(676-678)

EXHIBIT: Republic Enduro Stainless Steel and products fabricated from this metal for the textile industry; also plastic pipe, containers, tubing, fasteners, and materials handling equipment.

RHODIA, INC.
NEW YORK, N. Y.—(35)

EXHIBIT: Their polyvinylchloride fibers Rhovyl 55—highshrink and Rhovyl T—nonshrink and products made from these fibers in France.
IN ATTENDANCE: Louis Hochstaedter, Richard Netland.

RIETER & CO., LTD., JOH. JAKOB
WINTERTHUR, SWITZERLAND

and American Rieter Co., West Caldwell, N. J.—(19-28)

EXHIBIT: Combing Machine Model E7 with 8 heads; High Speed Draw Frame Model DO with 4 deliveries; Slubber 14 x 7 Model F1 with 28 spindles; Ringspinning Frame Model G4 with Hebucofil aspiration and cleaning system.
IN ATTENDANCE: Fritz Preysch, Fritz Meyer, John F. Dulken, Rene O. Halter, Carl Rosenthal, H. Keller, Hans Klaeui, Will Plowden, Noel L. E. Fawcett.

RIGGS & LOMBARD, INC.
LOWELL, MASS.—(266-273)

also Cook Machine Co., Lowell, Mass. and Parks & Woolson Machine Co., Springfield, Vt.

EXHIBIT: Products of these three firms, including Vibrator to process all types of fabrics; new high speed Cotton Shear; Shear for pile fabrics; Fulling Mill; automatic Storage Scray; Compactor; and miscellaneous Hi-Glass (fiber-glass) items, such as cloth Trucks and Pails.

ROBERTS CO.
SANFORD, N. C.—(345)

EXHIBIT: Their Arrow M-1 high draft, high speed cotton spinning frame; two Arrow Long Fiber worsted system spinning frames; Model WM-1 and WM-2; also featured will be the new Roberts-Tematex line of ParaDrafters including an AutoEvener machine and a new Para-Blender, which is being manufactured in Italy.
IN ATTENDANCE: R. E. Pomeranz, J. N. Pomeranz, Ralph Padgett, G. N. Giraudi, Alejandro Bautista, Meigs C. Golden, C. E. Oliver, W. A. J. Peacock, Selvyn Kent, R. Frank Walker, Meade O. Bradshaw, Ed Blackwood, Jack Stanley, Fred Glass, William Rankin, Elgin Conner, Fred Long.

ROTHKOPF & CO., INC., MAC
BROOKLYN, N. Y.—(1401)

Accessory equipment for knitting machines.

ROTHSCHILDE. see Fabrionics

ROY & SON CO., B. S.
WORCESTER, MASS. and
GASTONIA, N. C.—(385)

EXHIBIT: Card Grinders in operation; Card Clothing; Centerless Cot Grinder; Cot Tester; Granular Card parts.
IN ATTENDANCE: D. H. Dewar, Jr., F. Buonomo, D. Bousquet.

ROYAL WORCESTER INDUSTRIAL
CERAMICS LTD.
TONYREFAIL, ENGLAND—(1217)

EXHIBIT: Parts made of their Regalox alumina oxide for the textile industry.
IN ATTENDANCE: Roy D. Faigenbaum, their U. S. representative.

RUDEL MACHINERY CO. LTD.
MONTREAL, CANADA—(578)

They are Canadian representative of Marshall & Williams. See there.

RUDNICK, EDWARD S., REPRESENTATIVES
NEW BEDFORD, MASS.—
(931-934, 1024-1027)

They are representatives of the following Japanese firms: Kanegafuchi, O-M Spinning Machine Manufacturing Co., Mitsui & Co., and Daiwa Spinning Co., Nippon Card Clothing, Nippon Spindle, and Toscin Kogyo. (For Exhibit and Attendance see under these firms.)

IN ATTTENDANCE: Edward S. Rudnick, William Bowlin, and T. Hiki, of Mitsui & Co.

RUTI MACHINERY WORKS LTD.
RUTI, SWITZERLAND—
(1319-1322, 1416-1419)

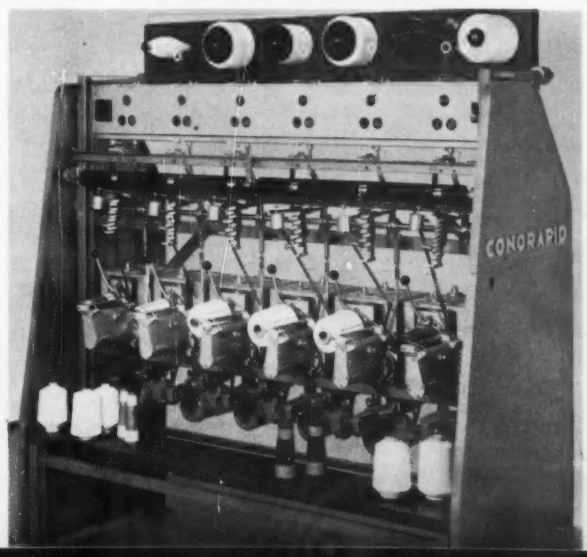
Represented by H. J. Theiler Corp.

EXHIBIT: Various models of their new Container (automatic bobbin loader) system installed on a 4 x 1 Automatic Container Loom, an Automatic 1 x 1 Box Container Loom, and on a 1 x 1 Automatic Container Loom for rayon fabrics; also an Automatic High Speed Loom with Unifil Loom Winder and a 4 x 1 Automatic Bobbin Changer.
IN ATTENDANCE: A. H. Deucher, E. Bolsterli, E. Kaspar.

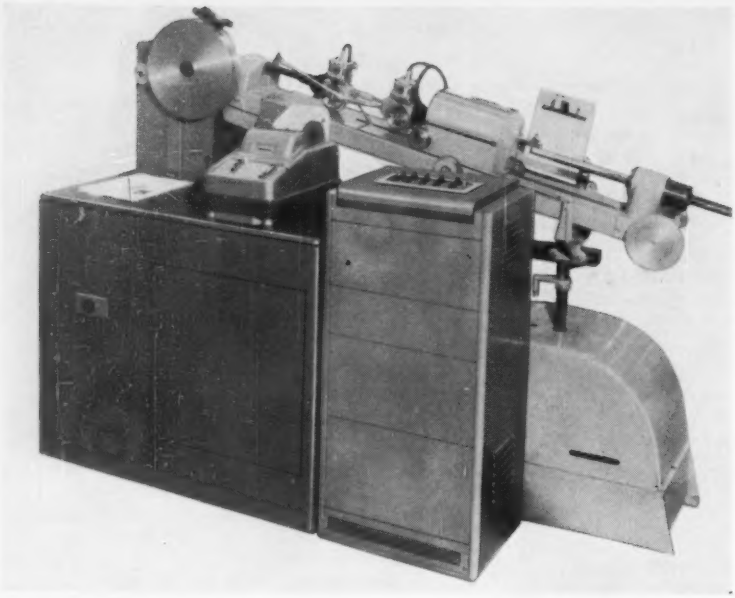
SACCARDO, INDUSTRIE. see Lenkotex

SACO-LOWELL SHOPS
BOSTON, MASS.—(99-101, 482-506)

EXHIBIT: New Roving Machine; Versa-Matic Draw Frame; Versa-Matic ADC Draw Frame; new SJ Worsted Spinning Frame; new SF-4C Worsted Drafting Changeover; SJ MagneDraft Spinning Frame; Saco-Lowell Allma Twister; Saco-Lowell Fleissner Dryer; Davidson-Kennedy SRRL Opener; Cleanguide Drafting Unit; and various replacement parts, such as Spindles, Rings, Travelers, and Gears.
IN ATTENDANCE: T. J. Ault, R. Walters, R. J. Jones, J. W. Hubbard, H. J. Jones, W. R. Lowell, M. Dolby, B. Zalkind, A. F. Koepcke, J. Cherry, H. Jewell, L. Turner, H. J. Haug, L. Cartier, E. Dill, F. S. Culpepper, M. R. Harden, R. Hansen, B. L. Holiday, E. T. Cansler, L. H. Ballard, H. D. Sills, J. W. Dickert, L. V. Chalmers, E. Waters, G. Huntley, J. E. Wright, M. E. Heard, Jr., W. G. Stainton, J. A. Pilkey, L. E. Becknell, H. M. Walsh, McKnight. A. A. Manseau, A. K. Bonge, A. Park, W. Lill, G. F. Wilcox, W. Wood, B. H. Kennedy, A. E. DuBois, Jr., Hall, S. Parks, A. L. Landau, H. S. Boyd, Jr., W. Hudson, F. P. Bodenheimer, A. Alden.



Reiner's Conorapid Precision Cross-Winder.



Scott Testers' Model IP-4 "Scotamatic" Incline-Plane Tensile Tester.

SAENTIS, INC.
UNION CITY, N. J.—(1140-44, 1211-15)
Representatives of Adolph Saurer Ltd.

SAHM MASCHINENFABRIK, GEORG
ESCHWEGE, GERMANY—(833)
Represented by Cosa Corp.

SAMPLE WEAVING MACHINE CO., LTD.
LIESTAL, SWITZERLAND—(910)
EXHIBIT: Their electromagnetic Sample Weaving Loom which allows for an unlimited number of patterns with the same card and the same draft.
IN ATTENDANCE: Peter J. Werner.

SANT' ANDREA NOVARA
NOVARA, ITALY—(1312-15, 1223-26)
Represented by Ernest L. Frankl Associates.
EXHIBIT: 2 New Rectilinear Combs; a high speed Intersecting Gill Box; a new high speed Roving Frame; and models and literature of installations for worsted preparations, spinning, and twisting.
IN ATTENDANCE: Giovanni Masera, Giovanni Bettolo, Carlo Schleifer, Pietro Savoini.

SARGENT'S SONS CORP., C. G.
GRANITEVILLE, MASS.—(470-473)
EXHIBIT: New design gas-fired, single-pass Dryer; synthetic staple Opener and Blender.
IN ATTENDANCE: F. Stanley Smith, Richard W. Hall, Robert D. Lambert, Albert G. Forty, David A. Crocker, F. E. Wasson, J. R. Angel, D. H. Caldwell, Hugh Williams, Ernest Carkin, Bryce H. Crocker.

SAURER LTD., ADOLPH
ARBON, SWITZERLAND—(1140-44, 1211-15)
EXHIBIT: Automatic 6 x 1 Drop Box Loom Type 100W; 2 Single Shuttle Automatic Type 100W Looms; Automatic Terry Towel Loom Type 100W; and Automat to Embroidery Machines.
IN ATTENDANCE: S. Remy, F. Forrer, A. Schneider.

SCHAFFHAUSEN KNITTING MACHINE WKS. LTD.
SCHAFFHAUSEN, SWITZERLAND—(1339-40)
With Robert Reiner, Inc. which see.

SCHARER TEXTILE MACHINE WKS.
ERLENBACH, ZURICH, SWITZERLAND—(935-39, 1019-23)
Represented by Yoemans Textile Machine Co.
EXHIBIT: Three models of their Automatic Filling Winders; their Pineapple Cone Winder.
IN ATTENDANCE: Jacques Scharer, Max Jent, Otto Zollinger, Kaspar Laager, Charles L. Yeomans, Charles H. Turner.

SCHILDE MASCHINENBAU, BENNO
BAD HERSFELD, GERMANY—(825)
Represented by Cosa Corp.
EXHIBIT: Their Air Penetration Dryer for loose textiles of all types.
IN ATTENDANCE: Jakob Nieding.

SCHLAFHORST & CO., W.
M.-GLADBACH, GERMANY—(304)
With Terrell Machine Co. which see.

SCHLUMBERGER & CIE., N.
GUEBWILLER, FRANCE—(1423-24, 1518-19)
Preparatory Machines for Worsteds.

SCHMIDT MANUFACTURING CO.
NEW BEDFORD, MASS.—(646-648)
EXHIBIT: Duraflex and Rubberset Loom Reeds; Polydur Pickers, Lug Straps, Sweepsticks, Gears, and Let-off Bands; Grob lightmetal Harness Frames, flat Steel, Leno & Twin Wire Heddles; Micro-Shave and Patent-Bar Temples; Ring Temples; Warp Spray; Shirley Line Gratings and Testing Instruments; Compreg-Beech Shuttles and Bobbins; and other new and improved loom parts.
IN ATTENDANCE: Clayton Schmidt, Ralph F. Schmidt, Joseph C. Motta, Ted Huston, O. C. Walker, Max Diggelmann, Karl Brenna, Colin Bulcock, Eric Runge.

SCHOLL, A. G.
ZOFINGEN, SWITZERLAND—(833)
Represented by Cosa Corp. which see.

SCHWABE, INC., HERMAN
BROOKLYN, N. Y.—(710)
Auxiliary machinery for parts.

SCHWEITER LTD.
HORGEN, SWITZERLAND—(1040-45, 1113-18)
Represented by H. J. Theiler
EXHIBIT: Automatic Pirn Winders; Automatic Hollow Cop Winders; Automatic Super-Cop Winders; their Vario-Coner Cone Winder in two models; two types of their Monofil-Coner.
IN ATTENDANCE: Walter Gutzwiller, Fritz Bollinger, Hans Badertscher, H. J. Theiler.

SCOTT TESTERS, INC.
PROVIDENCE, R. I.—(553-554)
EXHIBIT: Their new Model CRE Constant-Rate-of-Extension Tester and new Model IP-4 Scotamatic Incline-Plane Tensile Tester.

SCRAGG & SONS LTD., ERNEST
MACCLESFIELD, ENGLAND—(1425-31, 1511-17)
Represented by International Sales.
EXHIBIT: They will introduce their new Textured Yarn Process for the production of stabilized high-bulk polyester and polyamide modified filament yarns.

SEYDEL-WOOLLEY & CO.
ATLANTA, GA.—(57)
EXHIBIT: Niagara Twist Setter; the SEYCO Warp Lubricator; also various types of their textile chemicals.
IN ATTENDANCE: Vasser Woolley, Paul Seydel, Welling LaCrone, John Seydel, and members of the sales staff.

SHEFFIELD CORP., THE
DAYTON, OHIO—(384)
EXHIBIT: Their Pocket Micronaire Fineness Tester; a new Neptel Yarn Imperfection Counter; and two other new Micronaire instruments.
IN ATTENDANCE: William I. Wilt, Jerome Price, James Heberle, and Dr., Hugh Brown of Clemson, S. C.

SIMCO CO., THE
LANSDALE, PA.—(610-611)
EXHIBIT: Their Static Eliminating Equipment.
IN ATTENDANCE: Dolph Simons.

SJOSTROM MACHINE CO.
BOCA RATON, FLA.—(659-660)
EXHIBIT: New Guillotine Cutting Machine and Tilt-Table Curtain Cutting Machine.
IN ATTENDANCE: R. L. Sjostrom, B. Johannessen, George Mansfield, T. R. O'Neil.

SKF INDUSTRIES, INC.
PHILADELPHIA, PA.—(29A-30)
EXHIBIT: Four SKF Spintesters equipped with SKF Draftrite Roller Bearing Top Rolls, HF Roller Bearing Bolsters, and PK Pendulum Weighting Arms.; also their Tension Pulley, False Twist Spindle and Belt Guide Roller.
IN ATTENDANCE: D. C. Black, J. O. Cushing, B. F. Davis, R. E. Kinney, B. K. Lathbury, H. Feil, J. T. Paradise, A. B. Studley.

SMITH & SON, INC., JAMES
WORCESTER, MASS.—(350-351)
Preparatory equipment, wool manufacture.

SNEDEKER & CO., INC.
ANSONIA, CONN.—(1000-1002, 1101-1102)
EXHIBIT: Texnovo High Speed Shuttleless Narrow Fabric Loom; Ultratex Needle Looms.
IN ATTENDANCE: August J. Groh, Giovanni Piazzolla of Texnovo.

SOABAR CO.
PHILADELPHIA, PA.—(10)
Accessory equipment, materials handling.

SOBELCARD, S.P.R.L.
ZWEVEGEM, BELGIUM—(850)
EXHIBIT: All-steel metallic Card Clothing and Saw Tooth Wire.
IN ATTENDANCE: Pierre Ducaté.

SOCIETE ALSACIENNE DE CONSTRUCTIONS MECHANIQUES
MULHOUSE, FRANCE—(940-42, 1016-18)
Represented by Atkinson, Haserick & Co.
EXHIBIT: High-speed Comber Model "Perl"; Two-head Drawing Frame Model ER; and Automatic Carriage for Screen Printing on tables.
IN ATTENDANCE: Jean F. Berry, Robert F. Leslie and members of Atkinson staff.

SONOCO PRODUCTS CO.
HARTSVILLE, S. C.—(82-83)
EXHIBIT: Paper Cones, Tubes, Spools, Cores, Bobbins and Specialties.
IN ATTENDANCE: C. H. Campbell, C. W. White, J. K. Taylor, L. H. Stokes, A. H. Gildersleeve, J. A. Durkin, W. K. Lewis, J. A. Reagan, Jr.

SOUTHEASTERN LOOM & MACHINE WKS.
GREENWOOD, S. C.—(1229)
Weaving Machine.

SOUTHERN TEXTILE NEWS
CHARLOTTE, N. C.—(701)

SPAULDING FIBRE CO., INC.
DOVER, N. H. (397-398)
Supplies for preparatory and spinning departments.

SPEIZMAN CO., INC., MORRIS
CHARLOTTE, N. C.—(1535-37)
With Interstate Textile Equipment Co.

SPENCER & HALSTEAD LTD.
—(1047-1111)
Represented by Atkinson, Haserick & Co.
EXHIBIT: Vortex Oiling Device; Oily Wool Conveyor Fan Unit; Rotary Spreader; Mock-Up Fearnought Machine.
IN ATTENDANCE: A. Wibur Hayden, Douglas D. MacDonald, Eugene Bramhall.

SPINTEX SPINNEREI MASCHINENBAU
MURRHARDT, GERMANY—(663)
With Lenkotex Co. which see.

STALEY MFG. CO., A. E.
DECATUR, ILL. and ATLANTA, GA.—
(165, 168)
EXHIBIT: The Staley High Temperature Converter for preparing warp sizes automatically from unmodified corn starch.
IN ATTENDANCE: R. L. Nagle, Ed Grosse, W. N. Dulaney, Haley Ector, H. A. Mitchell, D. A. Barnes, C. A. Adams, Crawford Carren, Lonnie McCall, B. O. Merritt, A. L. Woodington.

STANDFAST DYERS & PRINTERS LTD.
LANCASTER, ENGLAND—(1341-43)
Represented by Atkinson, Haserick & Co.
EXHIBIT: Their Molten Metal Vat Dyeing Machine.
IN ATTENDANCE: Arthur Ogden E. G. Stone, V. Hartley, and members of Atkinson staff.

STEEL HEDDLE MFG. CO.
PHILADELPHIA, PA.—(420-423, 430-433)
EXHIBIT: Complete line of flat steel Heddles, Harness Frames, Reeds, Picker Sticks and Shuttles, featuring many new materials and designs shown for the first time.
IN ATTENDANCE: H. W. Fehr, J. J. Kaufmann, Jr., F. H. Kaufmann, H. P. Goodwin, A. J. Kieny, G. D. McGill, D. W. G. MacIntyre, S. Zimmerman, Jr., D. L. Batson, R. B. Stevens, H. D. Hammond, C. E. Morrison, J. W. Elliott.

STEELE CANVAS BASKET CO., INC.
CAMBRIDGE, MASS.—(293)
EXHIBIT: Canvas Baskets, Trucks, Hampers, Bags, Specialties.
IN ATTENDANCE: Arnold J. Cecchi, Gordon L. Whynaught.

STELLAMCOR, INC.
NEW YORK, N. Y.—(1336-38)
Representing Louis Newmark Ltd., A. Carniti & Co., LaDuranitre S. A., Ateliers de Construction Gilbos. (See under these firms.)
IN ATTENDANCE: Fred S. Levy and representatives of the above firms.

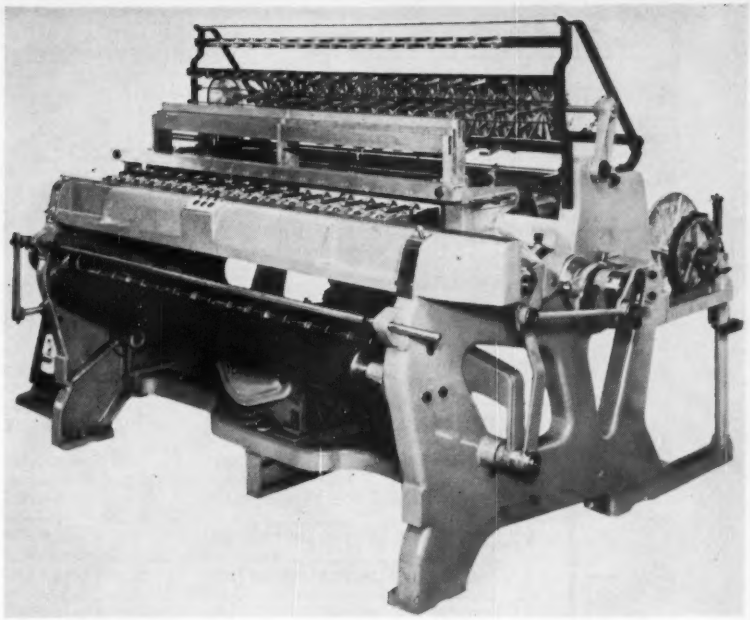
STERLING ENG. & MFG. CO.
WILKES-BARRE, PA.—(419)
EXHIBIT: Self-stacking Boards for handling bobbins, cones, tubes, quills, etc. made of cadmium plated and stainless steel; aluminum quill boards and self-stacking tube boards with flexible holder for yarn shrinkage; also yarn handling trucks.
IN ATTENDANCE: George McGee.

STEWART-WARNER CORP.
ALEMITE DIV.
CHICAGO, ILL.—(760-760A)
EXHIBIT: Automatic Lubrication of rings on spinning and twister frames with Alamite's Adjustable Accumite Centralized Lubrication System.
IN ATTENDANCE: T. M. Murphy, R. W. Fritz, J. R. Reinsma.

STORK & CO.'S APPARATENFABRIEK N. V.
AMSTERDAM, HOLLAND—(825)
Represented by Cosa Corp.

STOWE WOODWARD INC.
NEWTON UPPER FALLS, MASS.—(280)

SVETEMA, A. B. TEXTILMASKINFABRIKEN
GOTHEBORG, SWEDEN—(1326-27)
Represented by Ernest L. Frankl Associates.



Texnovo's Ultratex 16/25 Shuttleless Loom for Narrow Fabrics.

EXHIBIT: Their Laboratory DyePadder; Pad-Roll Laboratory Dye Apparatus; Pad-Roll Bleach Reaction Laboratory Unit; a compartment of their Counter-Current Open Width Washing Machine.
IN ATTENDANCE: Bertil Mellbin, C. Holmgren, and members of Frankl staff.

SYKES, INC.
CHARLOTTE, N. C.—(402-403)
EXHIBIT: Samples of cotton, woolen and worsted Card Clothing.
IN ATTENDANCE: C. E. Mason, Tom Pogson, Ben Bentley, Norman Crowther, Bryan Whitmire, Jack Lawrence, Harry Moss, Jr.

SYMATEX
BRUSSELS, BELGIUM—(853)
Representing Callebaut, Duranitre, Gilbos, Houget, Picanol, Raxhon, and Sobelcard.

TALCOTT, INC., JAMES
NEW YORK, N. Y.—(477)
Mill Factors.

TATTERSALL & HOLDSWORTH'S
ENSCHEDE, HOLLAND—(1414)
Represented by Ernest L. Frankl Associates.
EXHIBIT: Laboratory Dye Jig for dyeing short pieces in the full widths; literature on their "Relax" Tensionless Cylinder Drying Machine.

TAYLOR INSTRUMENT COMPANIES
ROCHESTER, N. Y.—(635-637)
EXHIBIT: Their new Relative Humidity Transmitter; animated panel showing application of their Sensaire Temperature Transmitter and 86K Indicating Control Station; their new Ful-Flex Single Case Controller; also instruments for Time-Cycle Control.
IN ATTENDANCE: Harry Olson, Leslie van Huben, C. L. Teschner, John F. Waples, George Zeiters, Robert Branigan.

TENNANT CO., G. H.
MINNEAPOLIS, MINN.—(1206-07)
EXHIBIT: Model 40-E (electric) Power Sweeper and Model E Floor Maintenance Machine.

Staley Mfg. Co.'s High Temperature Converter.

IN ATTENDANCE: Joseph Harroun, Richard Crickmer, Robert Guthrie, Robert Trost, Pat Manfra, William Teague, Robert Gault, Leonil Bass, Dallas Peel.

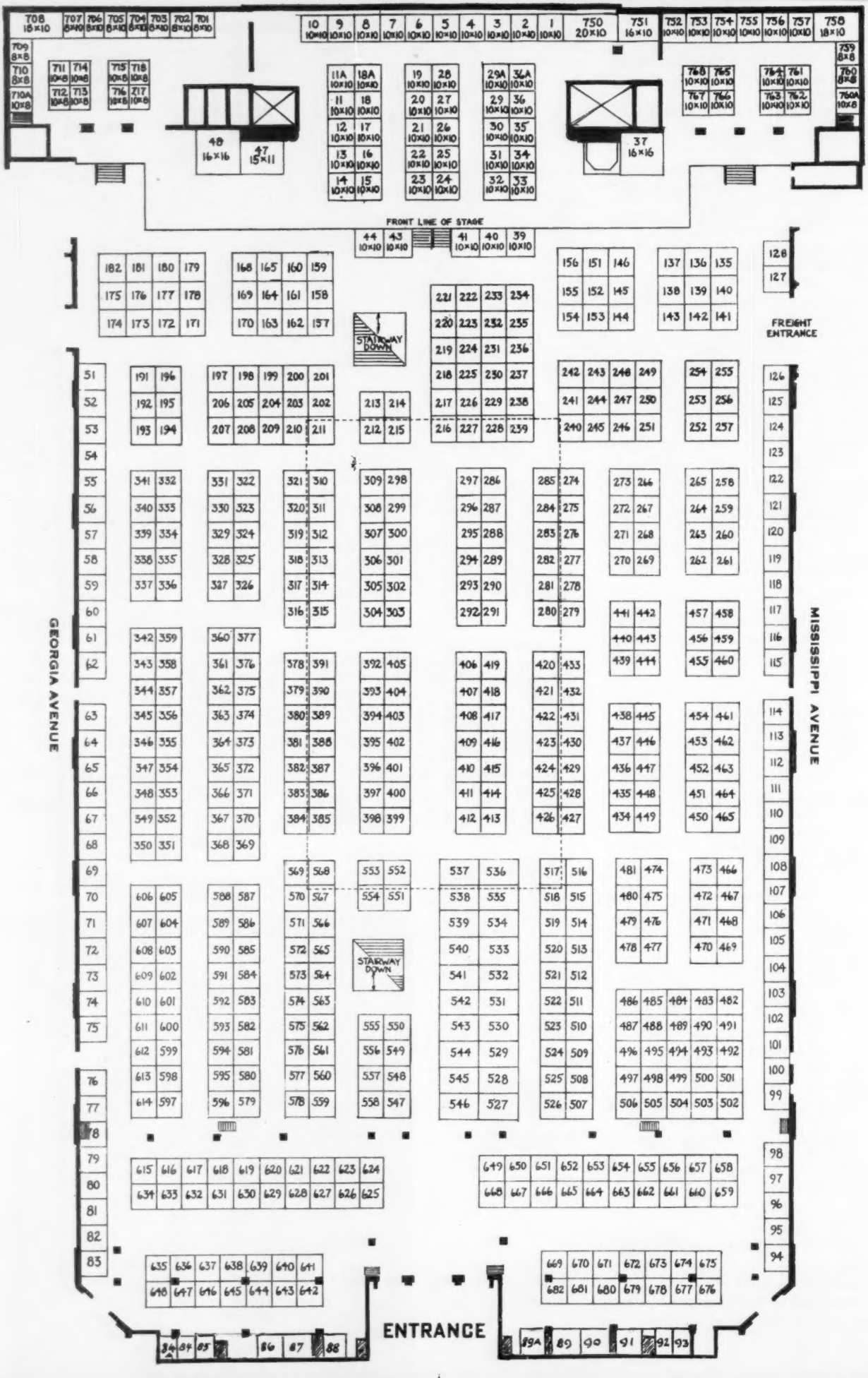
TERRELL MACHINE CO., THE
CHARLOTTE, N. C.—(304-305, 311-320)
EXHIBIT: Their new Roving Bobbin Cleaning Machine which will accommodate the new 13½ and 14" bobbins; also Filling Bobbin Cleaning Machines and Bobbin Handling equipment. They will also display the Schlafhorst Autocopser Automatic Filling Winder in operation.
IN ATTENDANCE: W. S. Terrell, Walter Reiners, J. F. Notman, J. R. Hartmann, John Scott, R. A. Moore, E. T. Gavin, Helmut Deussen, M. H. Ridenhour.

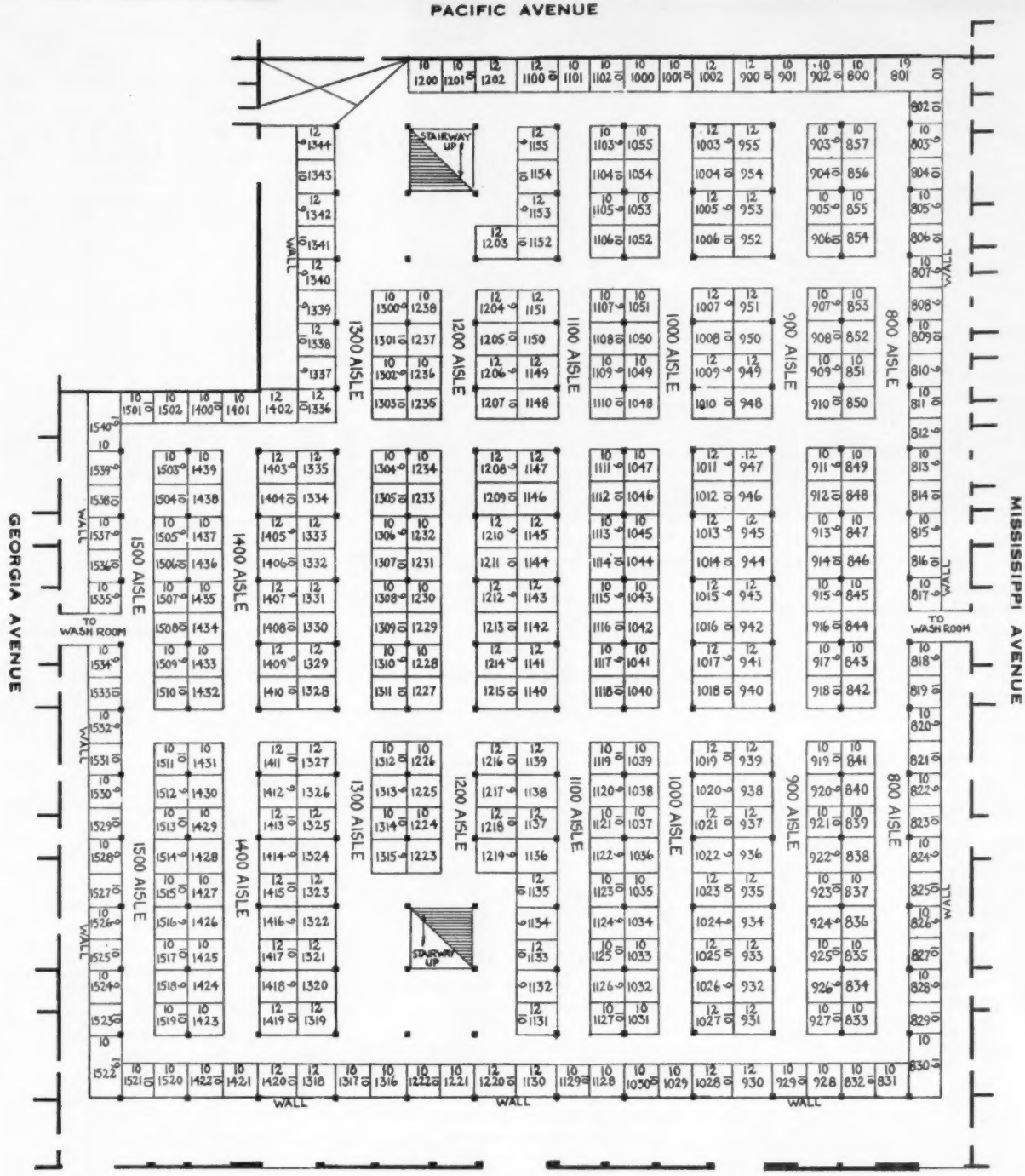
TEXNOVO S.p.A.
MILAN, ITALY—(1000-1002, 1101-1102)
Represented by Snedeker & Co. which see.

TEXPLANT CORP.
STAMFORD, CONN.—(1032-33)
EXHIBIT: HMG Auto-Gil of Hanseatische Motoren—G.m.b.H. and Verilux Luminaire of Wheeler-Fullerton Lighting Div., Boston, Mass., whom they represent.
IN ATTENDANCE: Albert J. Lindell, John von Ow, Malcolm M. Kaye of Verilux, and Oskar Krake of Hanseatische.

TEXTILE INDUSTRIES
ATLANTA, GA.—(415-416)

TEXTILE MACHINERY IMPORT CO., INC.
See Lansdowne Steel & Iron


FRONT LINE OF STAGE
STAIRWAY DOWN
STAIRWAY DOWN
FREIGHT ENTRANCE
GEORGIA AVENUE
MISSISSIPPI AVENUE
ENTRANCE



TEXTILE WORLD
NEW YORK, N. Y.—(406-407)

TEXTUBE CORP.
STAMFORD, CONN.—(661-662)

EXHIBIT: Bobbins, Tubes, Quills, and Cones of hardpaper, hardwood and plastics.
IN ATTENDANCE: Albert J. Lindell, Paul Mayer, Jules P. Fratturo.

TEXTURED YARN CO., INC.
NEW YORK, N. Y.—(31-32)

Space to be used as reception booth.

IN ATTENDANCE: Irving Schwartz, Ira Schwartz, Charles Weiner, Robert Stanley, Scott Alexander.

THEILER CORP., H. J.
WHITINSVILLE, MASS.—
(1040-45, 1113-18)

Representing Ruti and Schweiter.

TITAN A/S. see Edda International

TOMLINSONS (ROCHDALE) LTD.
ROCHDALE, ENGLAND—
(1328-29, 1409-10)

Represented by Atkinson, Haserick.

EXHIBIT: Their Auto-Zero Raising Machine.
IN ATTENDANCE: Richard R. Clegg, Harold H. Pomfret, and members of Atkinson staff.

TORRINGTON CO., THE
TORRINGTON, CONN.—(48)

EXHIBIT: Drawn Cup Needle and Roller Bearings, Heavy Duty Roller Bearings, Needle Thrust Bearings, and Cam Followers.
IN ATTENDANCE: Donald E. Lewis, Raymond G. O'Connell, William J. Chandler, Robert H. White, J. Robert Hull, Paul Glazier, Graham Whytlaw, Lawrence Paine, John R. Conboy.

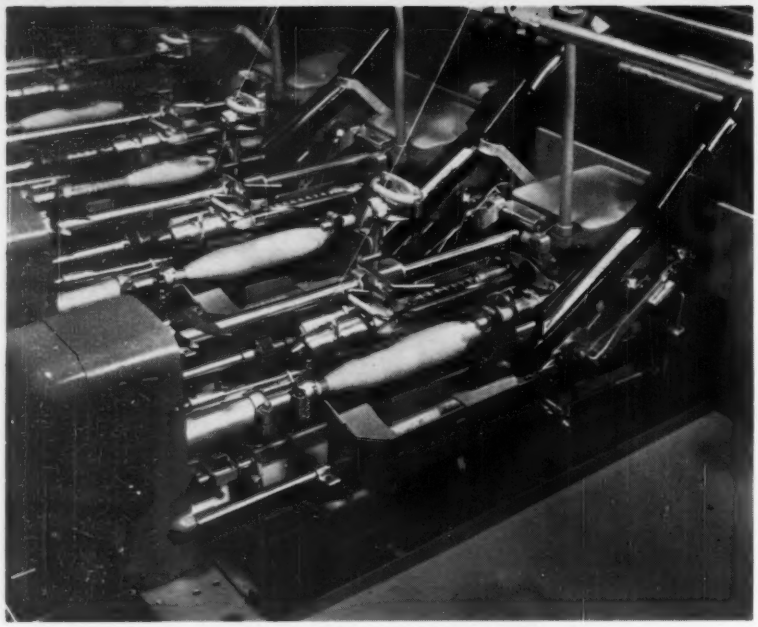
TRUMETER CO.
NEW YORK, N. Y.—(714)

EXHIBIT: Their Counting and Measuring Instruments; Inspection Machine made by Maag Brothers of Switzerland.
IN ATTENDANCE: Eric Seligmann, Rene Jacobus, Tom Aydelette, Ted Huston.

TRUTZSCHLER & CO.
RHEYDT-ODERKIRCHEN, GERMANY—
(1107-1110, 1048-51)

Represented by Ernest L. Frankl Associates.

EXHIBIT: New automatic Bale Plucking Machine; complete Picker Line; also information on their Cotton Opening equipment.
IN ATTENDANCE: Hans Trutzschler, Heinz Denckmann.



Close up of Terrell Machine Co.'s Schlafhorst Servolon Autocopser showing winding mechanism.

TUBULAR TEXTILE MACHINERY CORP.
WOODSIDE, L. I., N. Y.—(640-641)

EXHIBIT: Demonstration model of their Tube-Tex Reelax-Jet Dryer for the slack drying of broad woven fabrics; their Folder for high-speed fabric plaiting; inverted Steamer; and single-stroke fabric Cutter.
IN ATTENDANCE: Eugene Cohn, Don Foreman, Lee Rothenberg, Jr., Gene Lo Bell.

TURBO MACHINE CO.
LANSDALE, PA.—(809-815)

EXHIBIT: Their new Cross Shearer for looped and cut pile carpets.

UNISTEL TEXTILE MACHINERY CORP., THE
PORT CHESTER, N. Y.—(47)

Preparatory equipment for weaving: finishing equipment.

UNITED STATES STEEL CORP.
PITTSBURGH, PA.—(59-61)

Materials for machinery manufacture.

U.S. TEXTILE MACHINE CO.
SCRANTON, PA.—(144-146, 151-156)

EXHIBIT: Their ACME Fiber Glass Tube-Drive Twister; ACME S-Wrap Roll Doubler-Ring Twister; ACME Single Spindle Texturizer for laboratory work; also from their Utex Products Div.: BARMAG 2-for-1 Cotton Twister, BARMAG Draw Twister, and BARMAG Coner; Marquette roller bearing Spindles, McHale molded nylon Flyers, and UTEX Belting.
IN ATTENDANCE: A. W. Thomas, Jr., Donald W. Scheuer, Pacific J. Thomas, Jerome D. Gleitz, Chester L. Loveland, A. F. Lema, William P. Russell, Messrs. Bestgen, Schippers, Schlabach of Barmer Maschinenfabrik.

USTER CORP.
CHARLOTTE, N. C.—(765-768)

EXHIBIT: New Ustermatic Warp Tying Machine; their Evenness Tester and Integrator; Uster Spectrograph; Imperfection Indicator; Custom Tension Recordograph; and West Point Cohesion Tester.
IN ATTENDANCE: William B. Floyd, Hans Winiger, Aldo Broccasi, W. L. Boyd, V. N. Brockman, B. E. Sweet, J. R. Wright.

VANDERBURGH & CO., INC.
NEW YORK, N. Y.—(950-951, 1007-1008)

Braiding machines.

VAN VLAANDEREN MACHINE CO.
PATERSON, N. J.—(586-589, 604-605)

EXHIBIT: Heavy duty, constant speed, tensionless Automatic Dye Jig; combination Examining and Tubing Machine; heavy duty Pneumatic Padding Machine; and newly designed heavy duty high speed Tenter Frame.
IN ATTENDANCE: Guido Ricca, Adolph Barbera, Perry Parrott, Peter Van Vlaanderen, George Van Vlaanderen, Joe Ballentine, John White, Sam Huffstetler, John Derryberry.

VEEDER-ROOT INC.
HARTFORD, CONN.—(296-297)

EXHIBIT: Complete line of textile counting devices for production and incentive systems, including first showing of their Electronic Count-Paks and Predetermining Counters.
IN ATTENDANCE: F. J. Swords, R. C. Conant, H. B. Huff, J. J. Simons, J. H. Yost, T. Nelson, A. E. Kallinich, G. H. Anthony.

VENANGO ENGINEERING CO., INC.
PHILADELPHIA, PA.—(1400)

Dyeing and Drying equipment.

VERDOL, SOCIETE DES MECANIQUES
LYON, FRANCE—(1-4)

Represented by The Baxter Corp.

WAK INDUSTRIES, INC.
CHARLOTTE, N. C.—(1539)

Auxiliary equipment for all processing.

WALTON LABORATORIES, INC.
IRVINGTON, N. J.—(284-285)

EXHIBIT: Atomizers suitable for every type of humidity problem; models for duct installations; Web Conditioners.
IN ATTENDANCE: J. B. Feldermann, J. R. Lewis, G. Lyons, F. Hartwell, A. Janks.

WARNER & SWASEY CO., THE
CLEVELAND, OHIO—(327-341)

EXHIBIT: Whirlwind Twister Winder and several Pin Drafters, all in operation; also their Pacific Converter.
IN ATTENDANCE: H. P. Balsom, A. F. Barney, L. M. Cole, H. B. Hunter, H. K. Jennings, R. O. Perrault, G. M. Phoenix, Sylvia Taylor, T. L. Stilwell R. Whewell, Jr.

WATSON-WILLIAMS MFG. CO.
MILLBURY, MASS.—(672-675)

EXHIBIT: Wahide full thickness Shuttle and full line of their other shuttles; also Paper Tubes, Quills, Bobbins and Combs of Emil Adolff whose products they distribute.
IN ATTENDANCE: Hubert J. Watson, J. Kimball Watson, Howard S. Pellatt, Sutton M. Ebert, John Wyatt, Ralph Patten, Ray A. Norman, and representatives of Watson & Desmond, Charlotte, N. C.

WERNER MACHINE CO., INC.
PASSAIC, N. J.—(135-137)

EXHIBIT: Heavy duty double removable beam Jig for large diameter rolls; new combination Tuber and Examining Machine; continuous Two-Roll Batcher; new air-controlled friction Wind-up Unit; three-roll rolling Tension Unit; aluminum Tension Brakes; Cloth Oscillator; automatic Slot Sealers; Air Control Systems; Rotary Slat Expanders; Universal Print Machine Fitting Gear.
IN ATTENDANCE: Werner P. Rose, Paul Frederick Rose, Alfred R. Gessinger, Robert E. Kuhn.

WERNER TEXTILE CONSULTANTS
NEW YORK, N. Y.—(612-614)

EXHIBIT: Their Booth will graphically depict the major areas of their activities in Management, Manufacturing, Marketing, Industrial Relations, Administrative Methods, Research and Development. They will also conduct a seminar for executives at the Shelburne Hotel under the heading "Look at the 1960's".
IN ATTENDANCE: H. L. Werner, R. M. Ashner, J. C. Werner, J. P. Mills, C. W. Bendigo.

WESTINGHOUSE ELECTRIC CORP.
PITTSBURGH, PA.—(102-106)

EXHIBIT: Various types of Motors for textile machinery; Starters and Controls; Drives and Speed Reducers.
IN ATTENDANCE: A. W. Rose, J. J. Hill, J. O. Buchanan, R. M. Scott, J. E. Goetz, F. T. Benner, P. A. White, S. E. Morgan, R. W. Staggs.

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GA.—(1534)

WHITIN MACHINE WORKS
WHITINSVILLE, MASS.—
(212-239, 1153-55)

EXHIBIT: Ten of the newest models of textile machinery will be shown in operation, including their new 14" x 7" Roving Frame, their new American Worsted Comber, new Flex-Spin Wool Spinning Frame, their Super J Comber, a Four-Delivery Even-Draft Drawing Frame, their new Peacemaker P3 Twister, new heavy duty 10" guage 8" Ring Twister. In Booth 1153 may be seen the Whitin-ARCT False Twist Machine built by Ateliers Roannais de Construction Textiles in France. Other Whitin machines will be in operation in other exhibitors' booths.
IN ATTENDANCE: J. Hugh Bolton, John H. Bolton, Jr., E. M. Kennedy, and sales personnel from all of the company's domestic branches, as well as from overseas Whitin offices.

WILSON & LONGBOTTOM LTD.
BARNSLEY, ENGLAND—
(1432-35, 1507-10)

Cop winding and weaving machines.

W. W. WINDLE CO.
MILLBURY, MASS.— (348-349, 352-353)

EXHIBIT: Portable Bagging Machine; portable Baling machine; Waste Recovery System and Squirrel Cage Duster.
IN ATTENDANCE: W. W. Windle, J. W. Windle, J. R. Greenwood, R. H. Swenson, S. J. Knapik, William W. Windle.

WINSOR & JERAULD MFG. CO.
PROVIDENCE, R. I.—(107-111)

EXHIBIT: Their new Model T-5 heavy duty Tenter Frame equipped with their improved Model 12M high speed roller Tenter Clips, their Rail Guiders, as well as their conveyor type Clip Openers.
IN ATTENDANCE: Edward Wharmby, Albert J. Cole, Cecil C. Keyworth.

WOLTERS, GERMANY. see Roy

WOOLART MILLS
NEW YORK, N. Y.—(1318, 1420)

EXHIBIT: Finishing machine that lusters and softens all woolen face finish and synthetic pile fabrics, made by Heinz Hergert Machine Co. of Germany.
IN ATTENDANCE: F. Kloeckener, A. Lueder, Heinz Hergert.

WOONSOCKET NAPPING MACHINERY CO.
WOONSOCKET, R. I.—(138-143)

Napping machines for woven and knit goods.

YOEMANS TEXTILE MACHINERY CO.
SPARTANBURG, S. C.—
(935-939, 1019-1023)

They represent Scharer Textile Machine Wks.

ZEFFNER & CO., ALFRED
HANNOVER, GERMANY—(1538)

Auxiliary mill equipment, humidifiers.

PAPERS OF THE
AMERICAN ASSOCIATION FOR
TEXTILE TECHNOLOGY INC.®

A A T T

ROVANA

Dow's new saran micro-tape

By Nelson W. Abernethy

THE DOW CHEMICAL CO. is gradually developing a line of products offering the textile industry new fabric marketing opportunities. The latest addition is Rovana micro-tape. (Rovana is a trademark of Dow). Rovana's history dates back some ten years, when Dow scientists conceived the idea of slitting films into micro-tapes or ribbons which could be woven directly into fabrics. Rovana micro-tape employs the use of a plastic film with unusual characteristics.

To the chemist Rovana micro-tape consists of large molecules having a vinylidene chloride backbone as shown in the molecular model in Figure 1. To the textile trade it is a microporous saran micro-tape which can be woven directly into fabrics.

Why is Rovana different? First it is structurally unique. It basically is a thin slit film which is folded into a continuous micro-tape or ribbon. A photomicrograph (Figure 2) of cross sections of Rovana shows its unusual geometry as well as its microporous structure. It is easy to understand that when the micro-tape is woven into a fabric fewer yarns are required to cover each inch of space than with conventional yarns. This is why Rovana has high coverage.

Fabrics can be produced that are very resistant to tearing because of the flat geometry of the yarn. This simply permits a broad surface of one yarn to rest against a broad surface of another yarn, thereby lending abnormal support within the fabric structure. Lightweight fabrics of Rovana have been produced that have three to four times the tear strength of comparable cotton fabrics using yarns of approximately the same tenacity and denier.

Figure 3 depicts two plain weave fabrics, one woven from conventional yarns and one from Rovana. The high coverage feature, and comparative yarn bearing surfaces can easily be observed. The relative yarn bearing surfaces in a fabric of Rovana and a conventional yarn fabric are shown by the shaded areas in the figures.

Paper presented at the March 2nd, 1960 meeting of the American Association for Textile Technology at New York, N. Y.

Besides having tear resistance, Rovana is very resistant to chemical attack, is non-flammable, unaffected by moisture, rot resistant and weather resistant.

Rovana does not belong to the elite as a textile fiber. It is unlikely that it will be associated with the so-called "synthetic cashmeres" or "synthetic furs" such as mink and ermine but will better fit into what might be called the "work horse" class. Because of its high coverage, economy, ease of cleaning, durability, resistance to the elements, dimensional stability, etc., it offers much that is of interest to the textile trade.

A glance at typical physical characteristics of Rovana may be seen in Figure 4. Figure 5 shows a typical stress-strain curve for Rovana.

Abernethy is assistant director of the textile research laboratory of Dow Chemical Co. He started with Dow in 1942 in the main laboratory and worked at the company's magnesium plant in Marysville. Later he was assigned to the saran development laboratory and became a group leader in 1954. He received his B.S. degree from Alma College in 1933 and his M.S. from Michigan State College in 1938. He taught school for several years at Port Huron Junior College and Port Huron High School. Married and the father of four children, he makes his home in Midland, Mich.

Nelson W. Abernethy

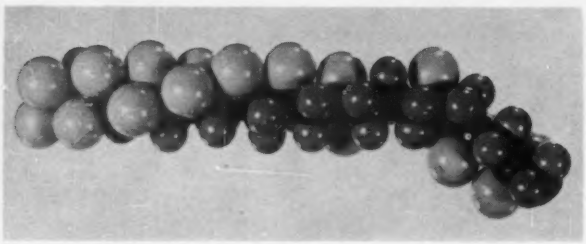


Fig. 1

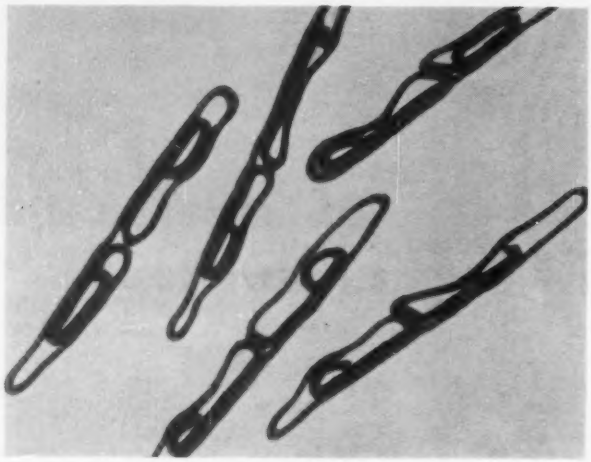


Fig. 2

Embossing

To the American buying public, perhaps the most important fabric properties are styling, performance and price. Rovana micro-tape is a thermoplastic material having a rather broad softening range but lacks what is commonly considered a melting point. Besides this somewhat unusual rheological characteristic the fiber has a microporous structure. This means that upon the application of heat and pressure the fiber can be compressed or shaped. When smooth surfaced fabrics are run through embossing rolls, two changes can be observed. First, pressure and heat transfer the embossed design into the fabric. Secondly, the compressed areas are densified and become deeper in shade, thus producing a two-toned or multitone effect as shown in Figure 6. This is a unique property of Rovana. These patterns in micro-tape fabrics are not removed when the fabrics are washed and they may even withstand boiling water.

With a little imagination, it is easy to appreciate the significance of this characteristic. Without the cost of special fabric treatment or intricate weave design, a multiplicity of fabric patterns can be made available to the trade. This feature spells styling economy and versatility. This unique property of Rovana could be an innovation to the textile industry.

Calendering

Because of the thermoplastic nature of Rovana it lends itself well to the operation of calendering. A wide variety of surface characteristics can be achieved without the use of special fabric treatments. Fabric porosity can be varied over a wide range and pore size successfully controlled when fabrics of Rovana are calendered under regulated conditions. Calendering fabrics of Rovana imparts higher abrasion resistance, improved surface appearance, and uniformity, better fabric closure, a more supple hand and increased resistance to soiling.

Moldability

Another property of Rovana, belonging to the general category of thermo-styling is the ability to mold fabrics of Rovana into three dimensional shapes, replacing the conventional techniques of cutting, sewing, etc. Figure 7 shows molded fabrics of Rovana made by employing vacuum forming and compression molding techniques.

Threadless Sewing

Think of cutting and sealing fabrics with heat! Fabrics of Rovana can be joined by thermal sealing to produce seams that are stronger than thread-sewn seams. When the fabrics are cut with heat, the cut edge is sealed and will be resistant to fraying. Thermal and electronic methods have all been used satisfactorily to join Rovana to Rovana and Rovana to a variety of other materials.

In a paper, "Trends in Automotive Fabrics" presented recently before the New York Chapter of the American Association for Textile Technology (published in this magazine, Jan. 1960, page 45) W. E. Belanger of Chrysler Corp., said: "sewing as a means of holding two pieces of cloth together is more primitive than riveting as a means of joining metal sheets.

"Within the next ten or 15 years we may eliminate sewing as a means of holding pieces of cloth together. Most of our cutting and piecing together of fabrics to cover seat shapes will be eliminated by body cloths that can be moulded to fit."

Ease of Care—Wash and Wear

An expression frequently used in textile circles today is "wash and wear." This is somewhat mis-

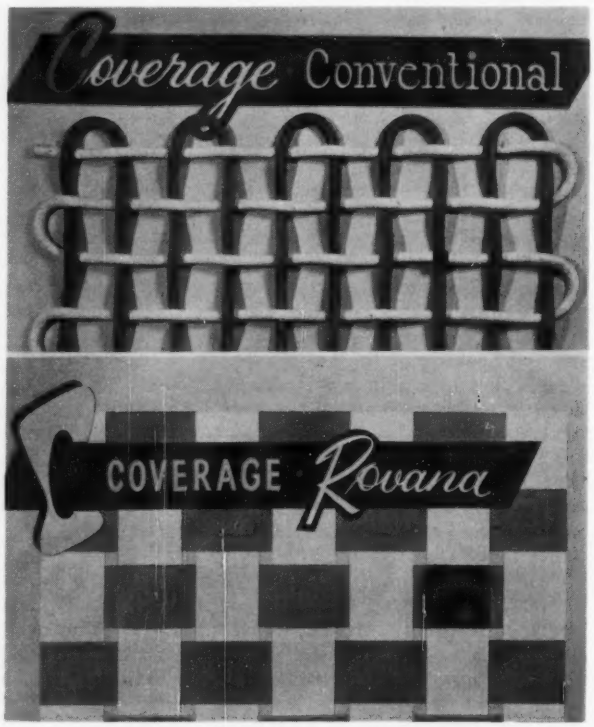


Fig. 3

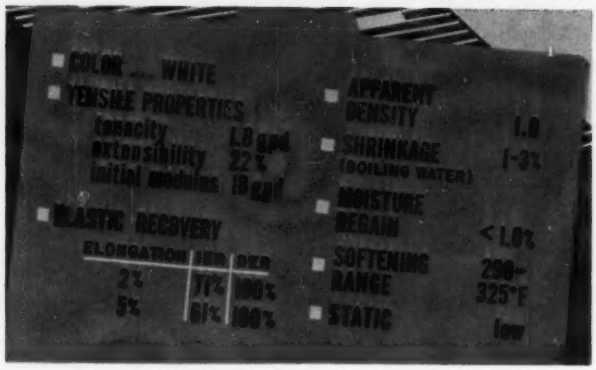


Fig. 4

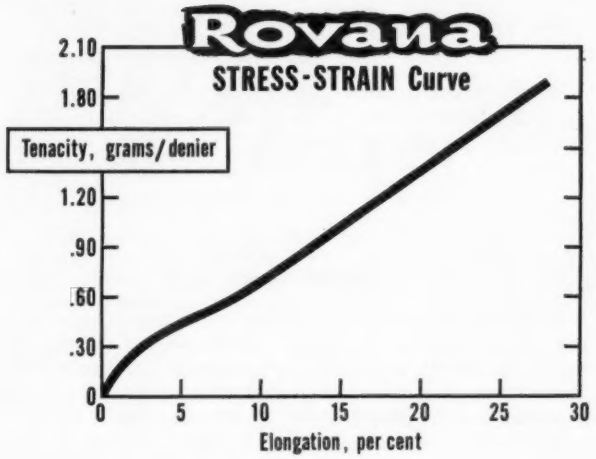


Fig. 5

leading because it is often interpreted to mean washability under a broad set of conditions and that the fabric will need little or no ironing to look like new. Such achievement is practically nonexistent today. Each year of textile research brings us closer to the ideal wash and wear fabric but in the interim "ease of care" better fits the present day fabrics. Rovana, because of its ease of cleanability and quick drying features, could play a significant role in "ease of care" fabrics. Where ironing is required, combination fabrics of Rovana can be ironed using "synthetic settings" on a standard household iron.

Versatility

The compatibility of Rovana with other yarns makes it versatile in fabric applications. Rovana can be used with other yarns to engineer fabrics which take advantage of the best properties of each component. Fabrics of Rovana have been woven with as much as one-third cotton and still retained their flame resistance. Standard warps of natural and synthetic yarns combine very well with a filling of Rovana.

Color

Conventional dyeing techniques are not recommended for Rovana; however, dispersed acetate and basic dyes may be used where marginal fastness properties are acceptable. Rovana micro-tape is offered in a wide range of pigmented or solution-dyed colors which offer excellent fastness to washing, dry cleaning, and crocking. The lack of dyeability of this new product can be utilized to produce union shades, tone-on-tone and heather effects. Since many of the dyestuffs neither stain nor dye Rovana, a complete range of shades can be obtained with many combination fabrics using piece dyeing techniques.

Processing

Rovana is processed readily as a tape of plied yarn, alone or in combination with other materials, on equipment normal to the industry. Since Rovana does not require conversion from staple to yarn, processing may begin at twisting or warping, depending on end-use requirements. Succeeding processes such as winding, quilling and weaving are performed on the same equipment used for other textile materials.

Rovana has been warped primarily on the silk or direct system employing speeds in the range of 80 yards per minute. A radial withdrawal from the creel package should be used in warping to prevent insertion of twist and to insure satisfactory weaving. An adapter must be employed to permit each package of yarn to turn freely and evenly about the creel pin.

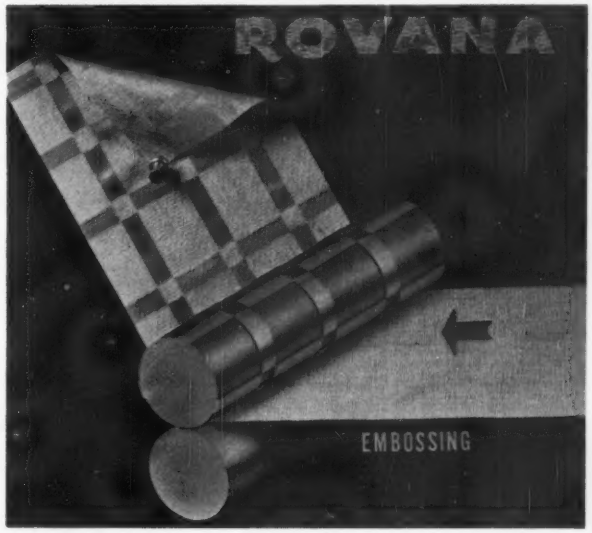


Fig. 6

Fig. 7

Fabrics of Rovana can be woven by employing the basic principles of filament weaving on single or multi-shuttle looms. Fabrics of 100% Rovana and combination yarns have been satisfactorily woven for a variety of applications. These have included fabrics as light as one ounce per square yard and as heavy as 30 ounces per square yard.

Utility

Rovana yarn is versatile and lends itself to a broad range of end-products. At present a large number of mills are evaluating Rovana. For the most part, work is being done with a select group of mills and converters on specific end-products.

Products ranging from Christmas trees and snow fences to draperies and wall coverings have been made from Rovana. It might be of interest to briefly review some of the major uses for Rovana and describe why it is suited to these applications.

Drapery: This application, now at the commercial level, emphasizes the micro-tape's dimensional stability, its luster, color stability and ease of care properties. Key to this use is its non-flammability, its styling versatility as it combines with other fibers, and finally, its resistance to rot and the effects of weather.

Luggage: Soft-side luggage with fabrics of Rovana woven on jacquard looms were market-tested this year in key cities. Benefits of the product in this application are the styling effects it makes possible, its durability and its ease of cleaning.

Place Mats: With a simplicity of fabrication in this use, the micro-tape has appeared commercially in place mats and shown its styling potential and its ease of care properties.

Upholstery fabrics: This application brings out the micro-tape's performance characteristics, as well as its styling possibilities coupled with economy and its good color stability.

Wall Covering: This is a new development for the product, although it was tested in the 1958 Research House at South Bend, Indiana, not long ago and proved to be most interesting. The aesthetic appeal of the fabrics is outstanding in this application and the micro-tape's resistance to soiling, its cleanability, durability and color versatility are all contributing factors to support the end-use.

Christmas Trees: Artificial Christmas trees of Rovana were sold on the market this past year and the micro-tape's non-flammability, luster, high coverage, color versatility and styling as well as economy were all in evidence.

Work Clothing: The product's chemical resistance, its non-flammability, low static, ease of care and economy all help its ready use in this volume application.

Tobacco Shade Cloth: Here high coverage, weather-ability and non-flammability are paramount.

Automobile Seat Covers: Styling, good abrasion resistance and economics all merit attention as product characteristics to support this application.

Snow Fence: Snow fences of both knitted and woven narrow fabrics of Rovana have been and are currently on test in more than ten locations in the United States. High coverage, lightness in weight (and, therefore, ease of installation and storing), weather resistance, economy and low temperature flexibility have been in evidence thus far.

In addition to these applications, Rovana also should find ready use in the following applications: golf bags; cubicle cloth; shoes; millinery; hand bags; book binding; window shades; decorative yarns and ribbons; tents; tarpaulins; dust collecting bags; filter fabrics; decorative ornaments.

Availability and Price

Rovana is available in three deniers

Denier	Width	Yield
300	.017″	14,882 yds/lb
400	.025″	11,161 yds/lb
550	.032″	8,111 yds/lb

At the present there are twelve solution-dyed colors plus natural. The price of 300 denier material is $1.25 per pound for natural and $1.35 for colored yarns.

Discussion

When the prepared paper had been read, there was a discussion period during which questions submitted by the audience were answered. Amos L. Ruddock of Dow acted as moderator. The following is a summary of some of the questions and their answers.

QUESTION: Is Rovana a saran fiber?

ABERNETHY: Saran is a generic name for products which contain a high quantity of chloride copolymer. As such, Rovana must be described as saran although it is physically and chemically different from the product you have known as saran in the form of filaments.

P. HOWLAND (J. P. Stevens & Co.): In weaving Rovana, how do you avoid imparting twist to the filling with consequent uneven appearance?

WALTER KLUBOWITZ (Dow Chemical Co.): Those of you who are familiar with the weaving process know that on production looms there is no way of withdrawing the yarn from the quill without inserting twist. We find, however, that we can put in a minimum of twist by winding the quills in one direction—that is contrary to the unwinding of the weaving operation.

LYMAN FOURT (Harris Research Laboratories) Are Rovana fabrics classified as quick-drying? Or does the complex fold hold water and retard evaporation?

ABERNETHY: I can't answer the last part of the question whether it retards it or not, since we haven't had any experience with materials that do not have this kind of fold, but Rovana fabrics are quick-drying.

Colorfast Ribbon

Burlington Ribbon Mills has developed a colorfast and washable Grosgrain Ribbon which can be ironed at any heat. It can be sewn onto fabrics, forming an integral part of the design. Before sewing, washable Grosgrain should be pre-shrunk by immersing in water and drip-dried, thus preventing uneven shrinkage of ribbon and fabric when the completed article is washed. Grosgrain is best applied with a medium tension and a small size stitch on the machine. Burlington's Grosgrain is woven with rayon and cotton which will withstand high heat. It is now available in most chain stores. *For further information write the editors.*

Edward C. Connor

Connor New President of Foster

Edward C. Connor has been elected president of Foster Machine Co., Westfield, Mass., succeeding W. C. Chisholm who has retired, according to an announcement made at a recent annual stockholders' and directors' meeting of the company. Connor is the eighth person to serve as president since the company's inception in 1921. He has been with Foster for the past 25 years, serving as vice president and director of sales. Connor is a graduate of Brown University and University of Pennsylvania Graduate School of Business Administration.

It was announced at the meeting that in 1959, Foster broke its 1958 record for the largest dollar volume in the company's history. At the meeting a rising vote of thanks was given Chisholm for "his many years of able service". It was pointed out that under his leadership Foster had prospered and grown since he assumed the presidency in 1946.

Twelve persons were elected or re-elected directors. They are: Edward C. Connor, George H. Gilpatric, E. F. Bridgeman, E. A. Plumb, C. H. Amidon, Jr. and J. W. M. Lozier—all affiliated with the Foster

(Continued on Page 117)

TEXTILE — NEWS BRIEFS

Allied Chemical Exhibit

Allied Chemical's initial room vignette at the National Design Center, New York City, employs home-furnishing materials made with products of Allied's National Aniline and Barrett Divisions. A variety of fabrics made with Caprolan nylon are featured. Polyurethane foam is used for cushioning in a sofa and chair. Allied Chemical is the major supplier of isocyanates, the basic ingredients in this foam.

Acetate Prices Increased

Price increases of five to ten cents a pound for acetate filament yarns were made in March by a number of producers. Celanese, American Viscose, Du Pont and Eastman advanced prices for 40, 45 and 55 denier yarn ten cents a pound. Other deniers were advanced five cents a pound.

New Gossett Accounts

Ralph Gossett and Co., Greenville, S.C., has been appointed representative for several companies. Following are the companies and the Gossett division handling the account:

Wright Plastics Co., producers of polyethylene bags, in South and North Carolina and Virginia—Packaging Division; Dee's Latex, producer of adhesives and chemicals in South and North Carolina and Virginia—Textile Chemicals Division; L. Sonneborn Sons, Inc., makers of oils and chemicals used in the processing and finishing of textiles, in Georgia, Alabama, and Tennessee—Textile Chemicals Division, and Rhodia, Inc., manufacturer of Rhovyl-T and Rhovyl-55 poly-vinyl chloride, staple fibers and filament yarns, in all southeastern states—Fibers and Yarn Sales Division.

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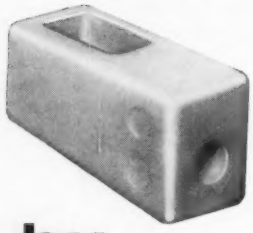

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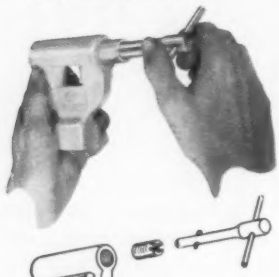

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Moves Southern Office

Hartford Fibres Co. has moved its southern sales office from Atlanta, Ga., to 221 South Church St., Charlotte, N.C. The relocation was motivated by Hartford's desire to be more centrally located in relation to its customers, particularly in view of market development for its new Zantrel polynosic rayon staple fiber. Richard M. Salisbury is in charge of the southern sales office and Kenneth L. Whitney is technical service manager.

W. H. Hindle

Hindle Sets Up Firm

Formation of Walter H. Hindle, Inc., with offices at 420 E. 55th St., New York City, as a consulting firm to serve the chemical and textile industries, has been announced by Walter H. Hindle, president. The new company has been retained by Air Reduction Co. as consultants on the development of vinal polyvinyl alcohol fiber.

Plan Dreyfus Laboratory

A contract for architectural and engineering design of The Camille Dreyfus Laboratory at North Carolina's new Research Triangle has been awarded to A. G. Odell, Jr. & Associates, it was announced by The Camille and Henry Dreyfus Foundation. The 20,000 square foot building, to be located on the Research Triangle Institute's campus, is named in memory of Dr. Camille Dreyfus, founder and first president of Celanese Corp. of America. Preparation of building plans will begin shortly, with the expectation that construction can begin by mid-summer.

Textile Progress Review

Volume 10 of "Review of Textile Progress," published jointly by the Textile Institute, the Society of Dyers and Colourists and Butterworths Scientific Publications, is reported to be the only publication in the world which presents annually a survey of the textile industry's latest developments and techniques. There are 34 contributors to the latest volume, each a specialist in his field. Copies of the Volume 10, containing 494 pages, costs 50 shillings and may be obtained from the Textile Institute, 10 Blackfriars St., Manchester 3, England.

R. I. Dalton, Jr. J. H. Bolton, Jr.

Whitin Elects Officers

J. Hugh Bolton was elected president and general manager of Whitin Machine Works by the company's board of directors at the 90th annual meeting. At a reorganization session, John H. Bolton, Jr., was promoted to vice president-marketing, and Robert I. Dalton, Jr., was promoted to vice president-domestic sales.

Named Southeastern Agent

Southeastern Loom and Machine Works has appointed the Louis P. Batson Co., Greenville, S.C., as its selling agent in the sale of textile and foundry parts. Southeastern pointed out, however, that Batson will not act as selling agent for its new Maxbo loom or for any parts of assemblies for this loom. Edda International Corp., New York City, is Southeastern's selling agent for the Maxbo non-shuttle loom.

American Enka Price List

The Marketing Division of American Enka Corp. is distributing a new consolidated price list and product handbook covering all Enka products. The 72-page handbook has been designed in loose-leaf form for greater flexibility. Within 24 hours of price change announcements, replacement price sheets will be mailed to Enka customers.

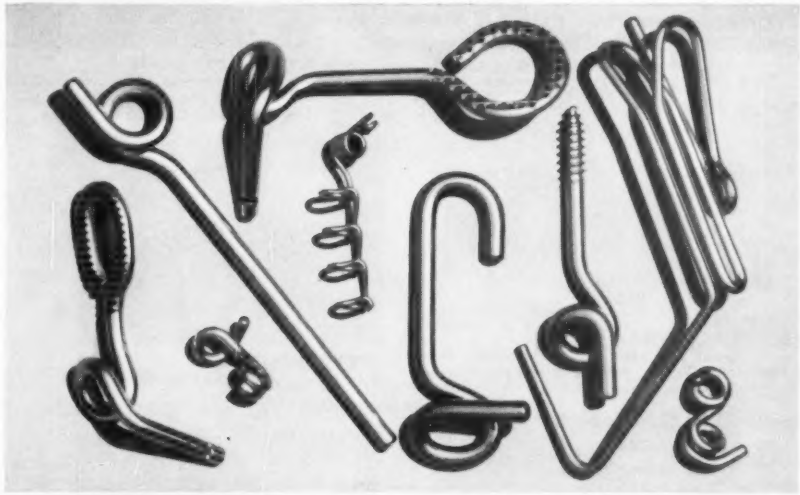
Manmade Fiber Booklet

The United Piece Dye Works has issued a 32-page booklet, "Guidebook to Manmade Textile Fibers, Textured Yarns and Dyeing Characteristics of Blended Fabrics," intended as a handy reference book. The booklet contains over 200 worldwide trademarks of synthetic textile fibers and textured yarns in current use, together with the Federal Trade Commission generic category for each fiber which must be used on and after March 3, 1960, on tags and advertising, of fibers, fabrics and end products.

A 17 by 22-inch chart in the back-cover pocket of the booklet indicates the dyeing characteristics of blended fibers by generic classes. The booklet and chart may be obtained from United Piece Dye Works, 1410 Broadway, New York 18, N. Y., at the following prices: $2 per single copy; 6 to 12 copies, $1.75 each; 13 to 50, $1.50, and over 50 copies, $1 each.

WHEN IT COMES TO PROTECTION...

HARD CHROMIUM PLATING



Walhard

The Leading Name In Textile **Hard Chromium Plating.**

Chromium plating, as does everything else, comes in various qualities, so you owe it to yourself to buy the best protection possible. Our customers expect the **best Hard Chromium Plating** when they buy **Walhard.**

During 26 years of successful experience, we have proven that fast, efficient service combined with **Hard Chromium Plating** "know how" mean "dollars in their pockets."

Be sure you are getting quality **Hard Chromium Plating** — both satin and polished finish — It costs no more and lasts longer.

WALTON and LONSBURY

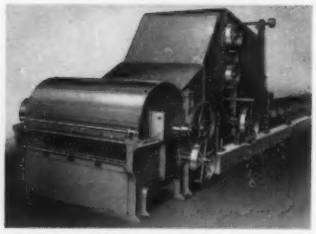
79 NORTH AVENUE **ATTLEBORO, MASSACHUSETTS**

Since 1852

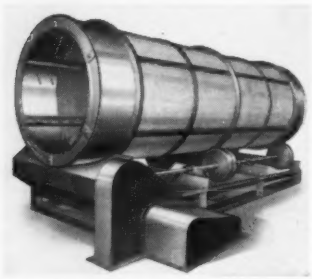
FIBRE PROCESSING MACHINERY by SARGENT

From Bale Opener through Dryer, Sargent's modern fibre processing system gives you completely automatic continuous production . . . an uninterrupted straight-line flow of quality-protected fibres at an economy you cannot afford to overlook. Let us tell you more.

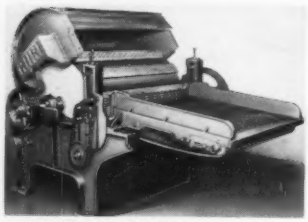
FEEDERS • OPENERS • PICKERS • BLENDERS
WASHERS • DRYERS • TOP & YARN HANDLING
AND SPECIAL PURPOSE MACHINERY



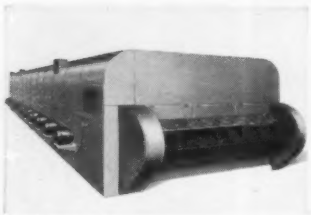
BALE OPENER AND PICKER
Continuous opening, picking and feeding, cotton linters or staple. Excellent on machine-picked cotton.



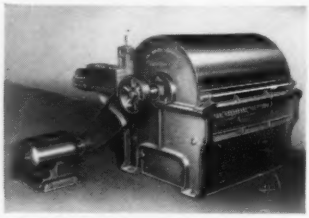
SQUIRREL CAGE DUSTER
Continuous dusting of heavy grease wools, waste, rags. Also very efficient blender.



WET AND DRY PICKER
Highly versatile—for fibres after bleaching, after dyeing. Works equally well with wet or dry fibres.

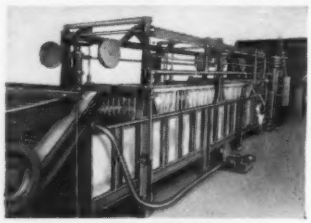


STOCK DRYER
Leads all dryers for performance and dependability on scoured or dyed wools, cotton, synthetics.



MIXING PICKER
For continuous blending—all fibres.

FIBRE PROCESSING SYSTEM
Section of recent installation showing high economy, complete dependability. Fibres are not handled from opening to drying.



STAINLESS STEEL WASHER
For scouring, bleaching, acidifying.

AT THE SHOW, ATLANTIC CITY, Booth 470-473

C. G. SARGENT'S SONS CORPORATION
Graniteville, SINCE 1852 Massachusetts

PHILADELPHIA • CINCINNATI • ATLANTA • CHARLOTTE • HOUSTON • CHICAGO • DETROIT • TORONTO

J. P. Foley P. L. Oertel

Paul L. Oertel has been appointed manager of advertising, and **James P. Foley,** manager of publicity, for the National Aniline Division of Allied Chemical Corp.

Rhodia Names Agent

SAB Chemicals Co. Inc., has been appointed representative for Rhodia, Inc., in New York, New Jersey, New England and Pennsylvania, for these special applications: overcoming urea formaldehyde odor in textile finishes and plants and for reodorizing textile finished products.

Rayon Surgical Supplies

American Viscose Corp. has issued a new brochure on the many uses of rayon fibers in surgical and sanitary nonwoven textile products. The brochure discusses the reasons why rayon is being used extensively in surgical nonwovens for home and hospital consumption, and points out its advantages over natural fibers for these products. *For copies of the brochure write the editors.*

FIPROA's Geneva Offices

International offices of the recently-formed Fiber Process Associations (FIPROA), a new worldwide textile service firm, will be established in Geneva, Switzerland to market the Kuljian continuous rayon spinning and processing machine, to design and construct new or modernized rayon plants, and to provide initial operating services for such installations. FIPROA is a joint undertaking of the Kuljian Corp., engineering and construction firm; Proctor & Schwartz, Inc., textile machinery manufacturers, and SNIACE, European rayon yarn producer.

Name S. African Agent

U.S. Textile Co., designers and manufacturers of yarn processing equipment, has appointed Marshall Hinds (Pty.) Ltd. as its representative in South Africa. Hinds will handle U.S. Textile's line of fiber glass processing machines as well as yarn texturizers, twisters, double-ring twisters and spoolers.

(Continued on Page 111)

U. S. MAN-MADE FIBER PRICES

This schedule lists the prices of yarns, staple and tow as reported by the producers in April 1960. All prices are given as subject to change without notice.

CELLULOSIC YARNS

ACETATE

American Viscose Corp.

Current Prices Effective March 22, 1960

Bright and Dull

Denier & Filaments	Intermediate Twist** Cones	Twister T-Tubes	Warps	Spinning Twist Cones & C-Tubes	Warps
40/11	$	$	$	$	$1.14
45/14	....	....	....	....	1.03
55/14-29	.99	.97	1.00	.93	.87*
75/18	....	....	....	....	.90
75/20	.95	.93	.96	.89	.90
100/28	.91	.89	.92	.85	.86
120/32	.82	.80	.83	.76	.77
150/36	....	....	....	....	.70
150/41	.74	.73	.75	.69	.70
200/54	.70	.69	.71	.66	.67
240/80	....	....	....	.65	.66
300/80	.66	.65	.67	.62	.63

* Tricot Spools Only.
** Standard Twist 2¢ Additional.
Fiber S. Sanitized 5¢ Additional.
Terms: Net 30 Days.

Celanese Fibers Company

Current Prices Effective March 22, 1960

Acetate Filament Yarn Prices

Bright and Dull

Denier and Filaments	Intermediate Twist 4 & 6-Lb. Cones	Beams	4-Pound Cheeses	Spinning Twist Cones	Beams	O Twist Tubes
45/13	$1.12	$1.13	$	$	$1.03*	$ ....
55/15	.99	1.00	....	....	.87*	.82
75/20	.95	.96	....	.89	.90	.68
75/50	.97	.98	....	....	.92	....
100/26-40	.91	.92	....	.85	.86	....
120/40	.82	.83	....	.76	.77	....
150/40	.74	.75	.74	.69	.70	....
200/52	.70	.71	....	.66	.67	....
240/80	.68	....	....	.64	....	....
300/80	.66	.67	....	.62	.63	....
450/120	.66	.67	....	.62	.63	....
600/160	.65	.66	....	....	....	....
900/80-240	.63	.64	....	....	....	....

* Tricot beams only. This item with Permachem—$.05 additional.
3T/10 electrical finish available at no premium.

3 to 5 turns on Cones or Beams	$.02 Additional
Over 5 turns	$.03 Additional per Turn
150 Denier 12-TM Tubes	$.73
3 Pound Cheeses	$.01 Less than 4-lb. Cheeses
2-BU and 4-BU Tubes	Same price as 4 & 6-lb. cones
Premium for Serving Tubes	$.05
Part Cone Premiums: 2-lbs.	$.05
1-lb.	$.10
Under 1-lb.	$.20

Celaperm Filament Yarn Prices

Denier and Filaments	Intermediate Twist 4 & 6-Lb. Cones	Beams	Spinning Twist Cones	Beams
55/15	$1.37	$1.38	$1.31	$1.32
75/20	1.34	1.35	1.28	1.29
100/26	1.28	1.29	1.22	1.23
120/40	1.19	1.20	1.13	1.14
*150/40	1.11	1.12	1.06	1.07
200/104	1.05	1.06	1.01	1.02
300/80	1.01	1.02	.97	.98
450/120	.99	1.00	.95	.96
600/160	.97	.98	....	....
900/240	.94	....	....	....

* 150/2Z/40 available in all colors. Contact our District Sales Representative for current availability of colors in other denier.

3 to 5 Turns on Cones or Beams	— $.02 Additional
Over 5 Turns	— $.03 Additional per Turn

Celaperm Black Yarn Prices

Effective March 22, 1960

Denier and Filaments	Intermediate Twist 4 & 6-Lb. Cones	Beams	Spinning Twist Cones	Beams
55/15	$1.17	$1.18	$1.11	$1.12
75/20	1.14	1.15	1.08	1.09
100/26	1.08	1.09	1.02	1.03
120/40	.99	1.00	.93	.94
150/40	.91	.92	.86	.87
200/52	.85	.86	.81	.82
300/80	.81	.82	.77	.78
450/120	.79	.80	.75	.76
600/160	.77	.78	....	....
900/80	.74	....	....	....

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.
Prices subject to change without notice.
All previous prices withdrawn.
Note: Prices on unlisted items can be obtained upon request.
Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.
Current Prices

"Acele"* Acetate

Bright & Dull

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist 2 & 4 Lb. ⅝" Tbs.	4 & 6 Lb. Tw. Tbs.	Cones	Bms.
40-13	$1.06	$1.13						
45-13	.94	1.02		$1.11				
55-18	.82	.86		.91			$.99	$1.00
55-24	.82	.86		.91			.99	1.00
75-24	.79			.90		$.93	.95	.96
75-50				.92		.95	.97	.98
100-32	.77	.35		.86		.89	.91	.91
120-50	.73	.76		.77		.81	.82	.83
150-40	.66	.69	$.69	.70	.74	.74	.74	.75
200-60/64	.65		.66	.67	.70	.70	.70	.71
240-80			.65				.69	
300-80	.60	.62	.62	.63	.66	.66	.66	.67
450-120	.61		.62	.63	.66	.66	.66	.67
600-160					.65		.65	.66
900-44					.63		.63	.64
900-240	.61				.63		.63	.64
1800-88					.61		.61	.62
2700-132					.61		.61	.62
3000-210					.61		.61	.62

(A) Regular Twist (2.9 and 5 T.P.I.)—add $.02 to Intermediate Twist Price.
(B) 1 lb. ⅝" Tubes—add $.02 to 2 & 4 lb. ⅝" Tube Price.

Color-Sealed

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist Twisted Tubes 2 Lb.	4 & 6 Lb.	Cones	Beams
55-18	$1.245	$1.315		$1.32	$1.35	$1.35	$1.37	$1.38
75-24	1.18	1.28		1.29	1.32	1.32	1.34	1.35
100-32	1.14			1.23	1.26	1.26	1.28	1.29
150-40	1.03	1.06	1.06	1.07	1.10	1.11	1.11	1.12
200-64	1.00			1.02	1.04	1.05	1.05	1.06
300-80	.95	.97		.98	1.00	1.01	1.01	1.02

(A) Regular Twist—Add $.02 to Intermediate Twist Price.

Black

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist 2 & 4 Lb. ⅝" Tbs.	4 & 6 Lb. Tw. Tbs.	Cones	Beams
40-13	$1.215	$1.285						
55-18	1.045	1.115		$1.12		$1.15	$1.17	$1.18
75-24	.98	1.08		1.09		1.12	1.14	1.15
100-32	.94			1.03		1.06	1.08	1.09
150-40	.83	.86	.86	.87		.91	.91	.92
200-60	.80		.81	.82		.85	.85	.86
300-80	.75	.77	.77	.78	.81	.81	.81	.82
450-120				.76	.79	.79	.79	.80
600-160				.74	.77	.77	.77	.78
900-240, 44				.74	.74	.74	.74	.75

(A) Regular Twist (2.9 and 5 T.P.I.)—add $.02 to Int. Twist Price.
(B) 1 lb. ⅝" Tubes—add $.02 to 2 & 4 lb. ⅝" Tube Price.

Specialty Yarns

Type 20	Same Price as Regular Yarn
Type C	Same Price as Regular Yarn

Thick & Thin

Denier & Filament	Natural Cones	Beams	Black Cones	Beams	Color-Sealed Cones
200-64 Int. Twist	$1.05	$	$1.15	$	$1.35
200-64 Reg. Twist	1.08	1.09	1.17	1.21	....

Terms: Net 30 days. Subject to changes without notice.
Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.
* Dupont's Trademark for its acetate yarn.

Eastman Chemical Products, Inc.

Tennessee Eastman Co.
Effective March 13, 1959

"Estron"* Yarn, Bright or Dull — White

Denier & Filament	Regular Twist Cones	Beams	Intermediate Twist Cones	Beams	Low Twist Cones	Beams	Zero Twist Tubes	Tricot Beams Spun Twist	Zero Twist
55/13	$1.01	$1.02	$0.99	$1.00	$0.93	$0.94	$0.82	$0.87	$0.86
75/19	.97	.98	.95	.96	.89	.90	....	.90	....
75/49	.99	1.00	.97	.98			....	....	....
100/25	.93	.94	.91	.92	.85	.86	....	....	....
120/30	.84	.85	.82	.83	.76	.77	....	....	....
150/38	.76	.77	.74	.75	.69	.70	.66	....	....
200/50	.72	.73	.70	.71	.66	.67	....	....	....
300/75	.68	.69	.66	.67	.62	.63	.60	....	....
450/114	.68	.69	.66	.67	.62	.63	....	....	....
600/156	.67	.68	.65	.66	.62	.63	....	....	....
900/230	.65	.66	.63	.64	....	....	.61	....	....
Heavier	....	....	....	....	....	....	.56	....	....

Current Prices—December 19, 1955

"Chromspun"*—Standard Colors (Except Black)

Denier & Filament	Regular Twist Cones	Regular Twist Beams	Intermediate Twist Cones	Intermediate Twist Beams	Low Twist Cones	Low Twist Beams
55/13	$1.39	$1.40	$1.37	$1.38	$1.31	$1.32
75/19	1.36	1.37	1.34	1.35	1.28	1.29
100/25	1.30	1.31	1.28	1.29	1.22	1.23
150/38	....	....	1.11	1.12	1.06	1.07
300/75	....	....	1.01	1.02	.97	.98
450/114	....	....	.99	1.00	.95	.96
900/230	....	....	.94	.95	....	....

Current Prices

"Chromspun"*—Black

Denier & Filament	Regular Twist Cones	Intermediate Twist Cones	Intermediate Twist Beams	Low Twist Beams
55/13	$1.19	$1.17	$1.18	$1.12
75/19	1.16	1.14	1.15	1.09
100/25	1.10	1.08	1.09	1.03
150/38	.93	.91	.92	.87
200/50	.87	.85	.86	.82
300/75	.83	.81	.82	.78
450/114	.81	.79	.80	.76
900/230	.76	.74	.75	....

Prices are subject to change without notice.
Prices on special items quoted on request.
Terms: Net 30 days. Payment—U. S. A. dollars.
Transportation charges prepaid or allowed to destination in continental United States except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.
* "Estron" is a trade-mark of the Eastman Kodak Company.
* Chromspun is a trade-mark of the Eastman Kodak Company.

RAYON

American Bemberg

Current Prices

Regular Production Reel Spun Yarn

Den/Fil	No Turn Skeins	Turned* Skeins & Cones	8½ Turns	High Turn Skeins & Cones 12 Turns	15 Turns	18 Turns
40/30	$1.49	$1.95	....	....	....	$2.08
50/36	1.29	1.55	....	....	....	1.85
65/45	1.22	1.38	....	$1.61	....	1.66
75/60**	1.11	1.25	....	1.48	$1.53	1.56
100/74**	1.02	1.15	....	1.40	1.45	1.51
125/60	1.01	1.12	$1.16	1.37	....	....
150/120	.99	1.08	1.18	1.33	....	....
300/225	....	1.01	....	....	1.14	....
900/744	....	.91	....	....	....	....
1800/744	....	.91	....	....	....	....

* Turn includes twists up to 6 turns on 40 and 50 denier, and up to 5 turns on heavier deniers.
** Spun Dyed Cupracolor Black 15¢ per lb. extra.

"44" HH Spool Spun Yarn

Den/Fil	No Turn Tubes	No Turn Beams	5 Turn Beams	5 Turn Cones	12 Turn Beams	12 Turn Cones	15 Turn Cones
40/30	$1.35	$1.35	....	....	....	....	....
50/36	1.05	1.05	....	....	....	....	....
65/45	1.13	....	....	....	....	$1.50	....
75/45*	1.04	....	$1.15	$1.15	$1.38	1.38	$1.46
100/60*	.96	....	1.10	1.10	1.30	1.30	1.38
125/60	.91	....	1.06	1.06	....	....	....
150/90*	.83	....	.87	.87	1.21	1.21	1.30
150/120	.87	....	....	.99	....	....	....

* Available also in Spun Dyed Cupracolor Black at 15¢ per lb. extra.

"44" HH "Parfe" Spool Spun Yarn

Den/Fil	No Turn Cones	5 Turn Cones	5 Turn Beams	12 Turn Cones	15 Turn Cones
50/36	$1.60	$1.85	$1.85	....	....
75/45	1.48	1.58	1.58	1.78	1.88
100/60	1.38	1.48	1.48	1.68	1.78
150/90	1.21	1.28	1.28	1.63	1.73
300/120	1.21	1.28	....	....	....

Nub-Lite (Short Nubbi)

Code	Den/Fil	2½ Turn Natural Cones	2½ Turn Cones*	5 Turn Natural Cones	5 Turn Cones*
1515	160/90	....	....	$1.50	$1.40
1519**	155/90	....	....	1.50	1.40
2008	200/120	....	....	1.11	1.01
3002	315/180	$1.15	$1.05	....	....
4011	410/224	1.15	1.05	....	....
6001	600/360	1.13	1.03	....	....
8001	860/450	1.13	1.03	....	....

* Basic price for cones when dyed. Dyed Colors 30 and 35 cents above basic price. Prices based on 200 lb. dyed lots only. Prices for natural yarn skeins same as natural cone prices.
** Code 1519 can be run in warp or filling.

CUPIONI Type B

Code	Den/Fil	2½ Turn Cones
9650	70/45	$1.69
9660	100/60	1.53
1545	150/90	1.30
9730	285/135	1.15
9792	450/225	1.15
9814	600/372	1.12
9837	940/372	1.02

"Spun Dyed Cupracolor is spun 150, 285, and 940 deniers at 35¢ per pound extra. Cupracolor Black Comes in all deniers."

STRATA SLUB

Code	Den/Fil	Turned Cones	Price
9747	275/225	3½	$1.25
9798	450/372	2½	1.18
9823	600/372	2½	1.10
9847	960/372	2½	1.02
9885	1290/372	1½	1.00
9934	2680/744	1½	1.00

"Spun Dyed Cupracolor is spun in 600 and 960 deniers at 35¢ per pound extra."

FLAIKONA

Code	Den/Fil	Turned Cones	Price
9699	150/148	2½	$1.35
9769	300/224	2½	1.25
9782	450/270	2½	1.05
9809	600/360	2½	1.05
9840	900/450	2½	1.00
9924	2000/744	2½	.95

"Spun Dyed Cupracolor Black 35¢ per pound extra."
Terms: Net 30 days, F. O. B. shipping point. Minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight allowed to Memphis, Tennessee. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F. O. B. delivery point.
Prices are subject to change without notice.

American Enka Corp.

Current Prices
Effective February 29, 1960
Standard Quality Yarns

NATURAL

Den./Fil.	Luster	Turns		Weaving Cones	Weaving Beams	Skeins Long	Skeins Short	Cakes	Knitting Cones
50/18	E	5	S	....	....	....	....	....	1.63
50/20	B	4	S&Z	....	....	....	....	1.52	1.64
75/10	B	3	S&Z	....	....	....	....	1.02	....
75/18	E	4	S	....	....	....	....	....	1.14
75/30	B	2.5,4	S&Z	1.14	1.14	1.32	1.41	1.02	1.14
75/30	B	8	S	1.24	....	1.49	1.59	1.12	1.24
75/45	P,E	2.5,4,5	S&Z	1.14	1.14	1.32	1.41	1.02	1.14
75/60	B,P	3,4	Z	1.16	....	....	....	1.04	....
100/14	B	3	S&Z	....	....	1.15	1.23	.90	....
100/40	B,E	12	S&Z	....	....	....	....	....	1.29
100/40	B,P,E	4,5	S&Z	....	.98	....	....	.90	.98
100/40	B	6	S	1.17	....	1.34	1.44	1.09	....
100/40	B,P	2.5,4	S&Z	.98	.98	1.15	1.23	.90	....
100/60	B	4	S&Z	....	....	....	....	.90	....
100/60	E	2.5	S	1.00	1.00	....	....	.92	....
125/40	E	3	Z	....	....	....	....	.87	.90
125/50	B,P	3	S	.96	.96	....	....	....	....
150/40	B,E	0		.745	....	....	....	....	....
150/40	B,P,E	2.1,3	S&Z	.82	.82	.96	1.03	.78	.82
150/40	B,E	5	S&Z	.90	.90	1.15	1.25	.86	....
150/40	B,E	8	S&Z	.95	.95	1.20	1.30	.91	....
150/90	E	2.1	S&Z	.83	.83	....	....	.79	....
200/40	B	2.1	S	.81	.81	.94	1.01	.77	....
200/40	P	3	Z	....	....	.94	1.01	.77	.81
250/60	P,E	2.4	Z	....	....	.93	1.00	.77	.80
300/30	E	3	S	.81	.85	....	....	....	....
300/40	B	3.2	Z	.73	.76	....	....	....	....
300/50	B,E	3	S	.73	.76	....	....	....	....
300/60,120	B,P,E	2.1	S&Z	.73	.73	.82	.89	.71	.73
300/60	B	3.5	S	.73	.73	.82	.89	.71	....
300/60	B	6	S	.86	.86	....	1.00	.84	....
300/60	B	8	S	.88	.88	....	....	.86	....
300/120H.T.	B	2.5	S	.75	.75	....	....	.73	....
300/40H.T.	B	3	Z	.85	....	....	....	.83	....
450/60	B	3	S	.69	.71	....	....	.67	....
450/80	B,E	3	S	.69	.71	.78	.85	.67	....
600/80	B,E	3	S	.73	.75	....	....	....	....
600/120	B,E	3	S	.69	.71	.78	.85	.67	....
900/120	B	3.4	S	.69	.71	.78	.85	.67	....
900/120H.T.	B	3.4	S	.71	.71	....	....	.69	....

B = Briglo
P = Periglo (Semi-Dull)
E = Englo (Dull)
H.T. = High Tenacity

Jetspun® (Colored Yarns)

Den./Fil.	Tenacity	Turns	Weaving Cones	Weaving Beams	Colors
100/40	Regular	2.5S	$1.35	$1.35	All
150/40	Regular	2.1S	1.17	1.17	All
200/40	Regular	8.3S	1.28	1.28	All
300/40	Regular	3.4S	1.09	1.09	All
300/120	Regular	2.1S	1.09	1.09	All
450/80	Regular	3.0S	1.05	1.05	All
600/80	Regular	3.4S	1.04	1.04	All
300/40	High	3.4S	1.11	1.11	All
600/80	High	3.4S	1.07	1.07	All
900/120	High	3.4S	1.06	1.06	All

® Registered Trade Mark for American Enka Solution-dyed Rayon Yarn.

Skyloft (Lofted Rayon Filament Yarns) Natural and Jetspun®

Denier	Denier per Filament	Twist	Cones or Tubes Natural	Cones or Tubes Black	Cones or Tubes Other Colors
1000	7.5	3.5S	$.92	$1.17	$1.17
2200	15	3.5S&Z	.67	.77	.84
2700	15	3.5S&Z	.67	.77	.84
4300	15	3.0S&Z	.66	.76	.83
5300	15	3.0S&Z	.65	.75	.82

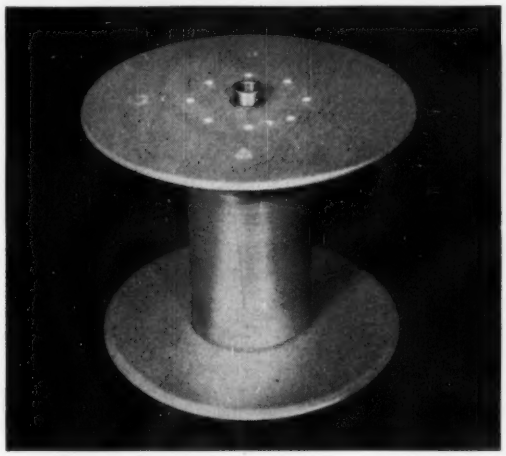
American Viscose Corp.

Effective October 13, 1959

Graded Yarns

Denier	Filament	Type	Regular Turns Short Skeins	Regular Turns Long Skeins	Regular Turns Cones Tubes	Regular Turns Beams Spools	Regular Turns Cakes
75	10-30	Bright	$1.41	$1.32	$1.14	$1.14	$1.02
75	30	Dull	....	....	1.14	1.14	1.02
100	14-40	Bright	1.23	1.15	.98	.98	.90
100	60	Dull	....	....	1.00	1.00	.92
150	24-40	Bright	1.03	.96	.82	.82	.78
150	40	Semi-Dull	1.03	.96	.82	.82	.78

NO YARN TRAPPING WITH BRAZED ALUMINUM TWO POUND TAKE-UP BOBBIN



New aluminum take-up bobbin with barrel and heads brazed together into a single unit prevents yarn trapping. Exceptional strength at price no higher than ordinary bobbins.

Write us today for full details.

See Us at Booth No. 654

ALLENTOWN BOBBIN WORKS, INC.

ALLENTOWN PENNSYLVANIA

IT'S THE FINISH THAT COUNTS!

NO. 873

NO. 511

NO. 306

NO. 410

With thirty-five years experience in Textiles, we are in a position to suggest any particular type of guide for your requirements.
On standard and fast moving styles we are able to make overnight delivery.
Man-made fibers and high speeds of today made it necessary to develop guides that will stand up under these conditions. Our "CLOMA" Guides are made from a homogeneous composition that is hard, smooth and uniform, which means less replacement, better quality product. Where tension and wear is a problem, we suggest this type guides.

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INCORPORATED 1954

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PAGE MADDEN CO.

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at the

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Atlantic City, N. J.

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Fred H. Land . . . . . Vice President
James A. Love . . . . . Export Representative
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Edward E. Ford . . . . . Sales Engineer
William C. Brown . . . . . Sales Engineer
Fred Hyatt . . . . . Sales Engineer
William Tomlinson . . . . . Designer

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See newly designed tenter frame; drive units, light and heavy frames, clips in innumerable styles and combinations! As tentering specialists in original design and expert manufacture, we can show you "what's new" to improve your operation. The complete M & W line includes —

HIGH SPEED TENTER FRAMES
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PIN TENTERS
TENTERETTES
TENSIONLESS BATCHERS
CONSTANT TENSION WINDERS
SWING PLAITERS
LET-OFF STANDS
OVERFEED EQUIPMENT
SELVAGE UNCURLERS
TENTER CLIPS
PIN PLATES & CLIPS

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GREENVILLE, S. C.

West Coast Agents E. G. PAULES & CO. Los Angeles, Calif.

Export AD. AURIEMA, INC., 85 Broad St., New York, N. Y.

150	40	Dull	....	....	.82	.82	.78
150	90	Dull	....	....	.83	....	.79
200	10-44	Bright	1.01	.94	.81	.81	.77
250	60	Semi-Dull & Dull	1.00	.93	.80	.80	.77
300	15	Bright	....	.85	.78	.78	....
300	30	Dull Flat Filament	....	....	....	.85	....
300	44	Bright & Dull	.89	.82	.73	.73	.71
300	234	Dull	....	....	.83	....	.81
450	60-100	Bright	....	.78	.69	.71	.67
600	100	Bright & Dull	....	.78	.69	.71	.67
900	50-100-150	Bright	....	.78	.69	.71	.67
1200	75	Bright	....	.78	.69	.71	....
2700	150	Bright	....	.78	.69	.71	....

Extra Turns Per Inch

150	40	Bright 6-Turns	$1.25	$1.15	$ .90	$ .90	$ .88
200	44	Bright 6-Turns	....	1.05	.96	.96	....
300	15	Bright 5-Turns	....	....	.86	.86	....
300	44	Bright 4.3-Turns	....	....	.81	....	.79
300	44	Bright 6-Turns	.97	.90	.86	.86	.84
300	120	Rayflex 6-Turns	....	....	.93	.93	....
600	30	Bright 5-Turns	....	.86	.82	.82	.80

Rayflex Yarns

150	40-60	Rayflex	$	$	$ .85	$ .85	$ .81
200	75	Rayflex	....	....	.84	.84	.80
300	60-120	Rayflex	....	....	.75	.75	.73
450	120	Rayflex	....	....	.71	.71	.69
600	234	Rayflex	....	....	.71	.71	.69
900	350	Rayflex	....	.80	.71	.71	.69

Thick & Thin Yarns

150	40-90	Bright & Dull	$	$	$1.18	$	$ ....
200	75	Bright & Dull	....	....	1.08	....	....
300	120	Bright & Dull	....	....	.98	....	....
450	100	Bright & Dull	....	....	.92	....	....
490	120	Bright & Dull	....	....	.98	....	....
900	350	Dull	....	....	1.03	....	....
930	120	Bright & Dull	....	....	1.03	....	....

Colorspun Yarns

Denier	Type	Cones/Tubes Beams/Spools
75	Regular Strength	$1.71
100	Regular Strength	1.35
150	Regular Strength	1.17
200	Regular Strength	1.14
300	Regular Strength	1.09
450	Regular Strength	1.05
600	Regular Strength	1.05
900	Regular Strength	1.05
300	High Strength	1.11
450	High Strength	1.06
900	High Strength	1.06
300	Regular Strength 5-Turns	1.19

Avicron Yarns

Avicron Yarns

Denier	Filament		Cones/Tubes Beams/Spools
1800	100-200	Singles & 2 Ply	$.61
2700	150-300-980	Singles & 2 Ply	.58
2700	980	Singles 5 TPI	.61

Viscose Filament Yarns

The following material deposit charges are required:

Metal Section Beams	$170.00 each
Metal Section Beam Racks	75.00 each
Metal Tricot Spools—14" flange	30.00 each
21" flange	60.00 each
32" flange	150.00 each
Metal Tricot Spool Racks—14" flange	135.00 each
21" flange	100.00 each
32" flange	75.00 each
Wooden Tricot Spool Crates	20.00 each
Cloth Cake Covers	.05 each

Same to be credited upon return in good condition—freight collect.

Celanese Fibers Company

Effective June 24, 1959

Viscose Rayon Filament Yarn Prices—Bright and Dull

Denier/Fil/Twist		Beams	Cones	Cakes
75/30/3			1.10	.98
100/40/2Z		.97		
100/40/3			.96	.88
100/40/5			1.02	
100/60/2Z	NS		.96	
100/60/3			.98	.90
125/40/2Z		.93		
125/40/3			.94	.85
150/40/0	NS		.74½	
150/40/2Z		.81		
150/40/3			.79½	.76
150/40/5			.90	.86
150/40/8			.95	.91
150/90/0	NS		.77½	
250/60/0	NS		.74	
250/60/3			.80	.77
300/50/0	NS		.70	
300/50/2Z		.72		
300/50/3			.70½	.69
450/120/0	NS		.67	

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U. S. A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

Effective with orders June 24, 1959

Bright and Dull

Den.	Fil.	Turns/Inch Up to		Beams	Cones (A) Tubes	Cones (A) Cakes
40	20	3	Textile "Cordura"*		$1.97	$1.92
50	20	3			1.70	
50	20	3	Textile "Cordura"		1.72	1.67
50	35	3	Textile "Cordura"		1.77	
75	10	3	Bright			1.02
75	30	3		$1.14	1.14	1.02
100	40	3	Bright	.98	.98	.90
100	60	3	Dull		1.00	.92
125	50	3		.96	.96	.87
150	40	3		.82	.82	.78
150	60	3	Bright	.82	.82	.78
150	60	3	Textile "Cordura"		.875	.845
150	90	3	Dull		.83	
150	100	3	Dull		.83	
300	50	2.5		.73	.73	.71
300	120	3	Textile "Cordura"	.74	.74	.72
450	72	3		.71	.69	.67
600	96	3	Bright	.71	.69	.67
600	240	3	Textile "Cordura"	.72	.70	
900	50	3	Bright	.71	.69	.67
900	144	3	Bright	.71	.69	.67
1165	480	3	Textile "Cordura"	.72	.70	.68
1800	100	3	Bright		.69	
2700	150	3	Bright	.71	.69	

Thick and Thin

100	40	3	#7 Bright		1.42	
150	90	3	#7 Bright		1.08	
200	80	3	#7 Bright		1.08	
450	100	3	#7 Bright		.92	
1100	240	3	#60 Bright		1.03	
2200	480	3	#60 Bright		.98	

Monofils

150	1	3	Bright	1.35	1.35	
300	1	3	Bright	1.15	1.10	
600	1	3	Bright		1.00	

Plush

300	30	3	Dull	.85	.81	

(A) 2¢/lb. additional for cones less than 3#.

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

* "CORDURA" and "SUPER CORDURA" are Du Pont's registered trade-marks for its high tenacity rayon yarn.

Industrial Rayon Corp.

Effective June 29, 1959

Continuous Process Textile Yarns

Denier	Filament	Turns per In.	Type	Beams	2.8# Cones	4.4# Cones and Tubes
150	40	2.5"S"	Bright	.82	.82	
200	20	2.5"S"	Bright	.81	.81	
300	44	2.5"S"	Bright	.73	.73	
450	60	2.0"S"	Bright	.69		.69
600	90	1.5"S"	Bright	.69		.69
900	50	2.0"S"	Bright	.69		.69
900	150	2.0"S"	Bright	.69		.69
1100	480	2.0"Z"	Bright extra strong	.66		.66

Lustre #4 is semi-dull.

Prices are subject to change without notice.

Strawn Monofilament

Denier	Filament	Turns per In.	Type	4.4# Cones	Spools and Tubes
450	1	0	Bright and Dull	1.00	1.05
450	1	2	Bright and Dull	1.00	1.05
1250	1	0	Bright and Dull	1.00	1.05
1250	1	2	Bright and Dull	1.00	1.05

Terms: Net 30 days f.o.b. point of shipment; title to pass to buyer on delivery of goods to carrier. Domestic transportation charges prepaid with transportation allowed at lowest published rate to all points in continental United States except Alaska.

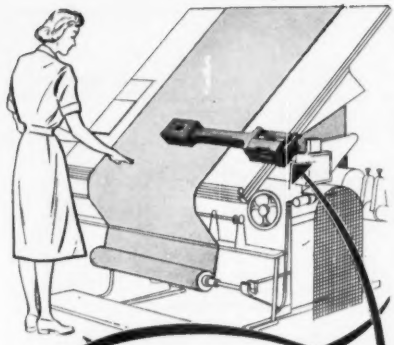
Prices are subject to change without notice.

North American Rayon Corp.

Current Prices

Prices Effective July 3, 1959

Denier/Filament	Twist	Knitting* Cones	No Twist Knitting Cones	Weaving Cones, Velvet Cones, Beams, Tubes**	Untreated Cakes
Normal Strength Yarns — NARCO					
75/30	3.5			1.14	1.02
75/30	7			1.27	
75/30	12			1.35	
75/30	15			1.37	
75/30	20			1.40	
100/40/60	3.5			.98	.90
100/40	12			1.22	
125/25/60	3			.98	.87



Something you owe your customers

Accurate textile measurement is what your customers expect. Give it to them! Show them indisputable evidence with a "TRUMETER" printed ticket or mill tag, delivered at any point during the run. This way you not only eliminate short-measure complaints and illegible handwritten records—you cut out waste *completely*. And that means EXTRA PROFITS!

Unique adjustable measuring rollers with built-in instant brake arrangement for high speed operation.

"TRUMETER"

can be fixed to most Inspection, Plaiting, Winding, Rolling and Doubling machines. Models are available for all types and widths of material—fine nylon, woolens, worsteds—even carpets, plastics, etc. It adds one way—subtracts the other and delivers its printed ticket with one depression of a lever. "TRUMETER" is always accurate — always reliable. There's one for *your* need.

ALSO:
MECHANICAL COUNTERS

for most industrial needs.

- *MEASURING*
- *REVOLUTION*
- *PRE-DETERMINED*
- *STROKE*

RIBBON & TAPE MEASURING MACHINES

Write for details of full line to:

TRUMETER COMPANY

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IN CANADA: W. J. Westaway Ltd., Hamilton, Ont.
SEE US IN ATLANTIC CITY, BOOTH 714

News

(Continued from Page 106)

E. B. Shaw has been named president of American Thread Co., succeeding **P. S. Howe, Jr.** who has become chairman of the board. In the same company **H. E. Williams** has been elected vice president and a director, and **H. L. Crispen, Jr.**, controller.

John N. Manbeck has been named manager of production planning in American Viscose Corp.'s Fibers Division and has been succeeded in his former post as manufacturing superintendent at the company's Lewiston, Pa. plant by **Richard I. Groening.** Also in the Fibers Division, **Edwin L. Marston** has been promoted to New York district sales manager, succeeding **Louis A. Welch,** deceased.

Carl J. Seifert, Jr., has been appointed general manager of the Borg Fabric Division of Amphenol-Borg Electronics Corp.

Hastings W. Baker has been elected treasurer of Beaunit Mills. Mr. Baker is also secretary and a member of the board of directors of the company.

Frank E. Kutcher, Jr. has been appointed controller of H. W. Butterworth & Sons Co.

J. Stewart Campbell has been appointed special projects manager for Celanese Corp. of America's Darvan nytril fiber.

Th. B. Luse

Theodore B. Luse has been named vice president of James Talcott, Inc.

Samuel B. Lippincott has been named manager of the Fibers Division of Chemore Corp. Chemore are representatives in the United States and Canada of Montecatini Soc. Gen. of Milan, Italy.

Murray H. Morse has been appointed to the position of director of marketing administration for Chemstrand Corp.

Dr. R. Lee Wayland, Jr. has been named an assistant director of research at Dan River Mills, Inc.

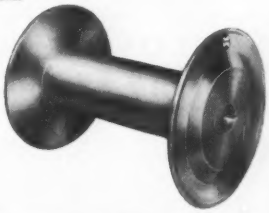
(Continued on Page 115)

Call **MILTON** *for dependable* **BEAMS**

FORGED HEAD ALUMINUM ALLOY TRICOT & RASCHEL BEAMS

RUGGED in design . . . light in weight, with the big bonus of SUPER STRENGTH—for dependable service with nylon, rubber, acetate, rayon and other yarns.

13¾", 21" and 30" diameter forged, heat-treated aluminum alloy heads and extra heavy wall barrels become a one-piece beam by Milton's continuous weld process. Here is true dimensional stability without objectionable deflection or distortion.



STEEL BARREL WARP BEAMS

for BROAD, NARROW FABRIC, RIBBON, VELVET AND CARPET LOOMS

BROADLOOM BEAMS

for C & K and Draper Looms

Shown above is Milton's stud construction (also made with cast iron hubs).

RIBBON LOOM BEAMS

Adjustable head with fixed shaft, or fixed head with removable shaft.

SEE THEM . . . BOOTH 386

MILTON MACHINE WORKS
INCORPORATED
DESIGNERS • ENGINEERS • MANUFACTURERS
MILTON • PENNA.

150/42	0		.74½		
150/42/60	3	.80½		.82	.78
300/75	0		.71		
300/75	3	.73		.73	.71
900/48	2.5	.69		.69	
1800/92	2.5	.69		.69	

* Oiled Cones $.01 per pound extra for Graded Yarns only.
** 1 lb. Tubes $.02 per pound extra for Graded Yarns only.

Terms: Net 30 days, F.O.B. shipping point, minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight to Memphis, Tennessee allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F.O.B. delivery point.

Prices subject to change without notice.

TRIACETATE

Celanese Fibers Company

Current Prices

Arnel Yarn Prices
Bright & Dull

Effective August 19, 1958

Denier and Filaments	Cones	Beams	Thick and Thin Cones
55/WKZ/15	$	$1.16	$ ....
55/2Z/15	1.32	1.33	....
75/WKZ/20	....	1.16	....
75/2Z/20	1.21	1.22	....
100/2Z/26	1.14	1.15	....
150/2Z/40	.95	.96	....
200/2Z/40	....	....	....
200/2Z/52	.92	.93	1.25
300/2Z/80	.87	.88	1.23
450/2Z/120	.86	.87	....
600/2Z/160	.85	.86	1.21

3 to 5 Turns on Cones or Beams—$.02 Additional
Premium for Black Arnel—$.25 Per Pound
Premium for Navy Arnel—$.37 Per Pound

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

CELLULOSIC HIGH TENACITY YARN and FABRIC

American Enka Corp.

Effective December 23, 1959

Industrial Yarn Prices

Prices Subject to Change Without Notice

	Denier/Filament	Standard
TYREX (ENKA II and III)	1100/720	.57
	1650/1100	.50
	2200/1440	.49
	*3300/2160	.49
TYREX FABRIC (ENKA II and III)	1100/720	.69
	1650/1100	.59
	2200/1440	.58
SUPRENKA M	1230/720	.57
	1800/1100	.50
	1825/1100	.50
	2200/1440	.49
	*3300/2160	.49
TEMPRA	1100/480	.56
	1130/480 (5.0Z Twist)	.60
	1230/480	.56
	1230/480 (5.0Z Twist)	.60
	1650/720	.49
	1820/720	.49
High or Low Elongation	2200/960	.48
	2400/960	.48
TEMPRA—SEWING YARN	1230/480	.60
	1750/720	.52
	1820/720	.51
HIGH TENACITY	300/120	.75
	900/120	.71
REGULAR TENACITY	100/40	.98

* Currently available only in Enka III.

Terms: Net 30 days, f.o.b. Enka, North Carolina, or Lowland, Tennessee; minimum freight allowed to first destination east of the Mississippi River. * Tyrex certified viscose yarn.

American Viscose Corp.

Effective Dec. 23, 1959

Tyrex*
Tyrex* Viscose Tire Yarn

Denier	Filament	Twist	Beams	Cones
1100	980	0	.57	.57
1100	980	Z	.57	....
1650	1500	0	.50	.50
1650	1500	Z	.50	....

Tire Fabric Made with Tyrex* Viscose Tire Yarn and Cord

Denier	Filament	Carcass	Top Ply	Breaker
1100	980/2	.69	.69	.69
		Factor Open-525	300-490	115-275
1650	1500/2	.59	.60	.625

Factor determined by dividing total ends by picks.

* Tyrex is a collective trade-mark of Tyrex Inc. for Viscose Tire Yarn and Cord.

Rayon Tire Yarn
Yarn

Denier	Filament	Twist	High Strength (Unslashed)	High Strength	Super "Rayflex" 210-310	Super "Rayflex" 120-220-320
1100	490	0-Z	....	.56	....	....
1100	980	0-Z	....	....	....	.57
1150	490	Z	.56	....	....	....
1230	490	Z	.56	....	....	....
1650	980	Z	.49	.49	.49	....
1650	980	0	....	.49	....	....
1650	1500	Z	....	....	....	.50
1650	1500	0	....	....	....	.50
1875	980	Z	.49	....	.49	.50
2200	980	0	....	.48	....	....
2200	1500	0	....	....	....	.49
3300	3000	0	....	....	....	.49
4400	3000	0	....	....	....	.49

High Strength available on cones—tubes—beams.

High Strength and Super "Rayflex"

0 Twist—available on 10# cones—beams—10# tubes.
Z Twist—available on beams.

Avisco Bag Twine

Sold by The American Thread Company

1100/980 Super "Rayflex"	0-Z	Cones	.62
1500/980 Super "Rayflex"	0-Z	Cones	.59
1780/980 Super "Rayflex"	0-Z	Cones	.55

Also available in red at .07 premium.

Chafer Yarn

1100/490 High Strength	5Z	Twist	.60

All yarns sold "Not Guaranteed for Dyeing".

Tire Fabric

Denier	Filament	Type	Carcass	Top Ply	Breaker
1100	980	Super 120-220-320	.69	.69	.69
			Factor* Open-525	300-490	115-275
1650	980	Super 110-210-310	.58	.59	.615
1650	1500	Super 120-220-320	.59	.60	.625

* Factor determined by dividing total ends by picks.

Cord on cones in regular Tire Yarn twists same as fabric prices.

Other twist combinations—prices quoted on request.

When supplied, yarns and cords in special packages take premiums indicated.

10.5 oz Wardwell Tubes	.10
1.5 lb Regular Braider Tubes	.06
3.5 lb Tubes	.045

The following deposit charges are made on invoices:

Beams	$55.00 each
Crates (Metal)	75.00 each
Fabric Shell Rolls	3.50 each

Same to be credited upon return in good condition—freight collect.

Rayon Tire Yarn and Fabric

Terms: Net 30 days. Seller to select and to pay transportation charges of common and contract carrier except when shipment moves West of the Mississippi River, in which event the actual cost of transportation to the Mississippi River crossing based on the lowest published freight rate, shall be allowed. Title to pass when merchandise is delivered to consignee. Transportation allowance based on lowest published volume rate shall be granted if merchandise is transported from shipping point in vehicle owned or leased and operated by buyer and title to pass when merchandise is delivered to same.

Price subject to change without notice.

Celanese Fibers Company

Effective December 27, 1955

Fortisan Yarn Prices

Denier	Packages	Natural	Black
30/2.5/40	2 lb. Cones	$3.00 lb.	$3.35 lb.
60/2.5/80	4 " "	2.40 "	2.75 "
90/2.5/120	4 " "	2.25 "	2.60 "
120/2.5/160	4 " "	2.05 "	2.40 "
150/2.5/180	4 " "	1.95 "	2.30 "
270/2.5/360	4 " "	1.85 "	2.20 "
300/2.5/360	4 " "	1.85 "	2.20 "

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

Fortisan-36 Rayon Yarn
Bright

Denier and Filament	Twist	4# cones	8# cones	Tubes	Beams
270/280	0.8Z	$2.30			
300/280	0.8Z	$2.05			
300/280	3Z	$2.20			
400/400	0.8Z	$1.75			$1.70
400/400	0			$1.75	
800/800	0.8Z	$1.25	$1.25		$1.20
800/800	3Z	$1.40			
800/800	0			$1.25	
1600/1600	0.8Z	$1.15	$1.15		$1.10
1600/1600	2½Z	$1.30			
1600/1600	0			$1.15	

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

Visit us at

SPACES 266-273

ATMA
American Textile Machinery Exhibition - International
Parade of Progress

American Textile Exhibition

Atlantic City • May 23rd-27th

Everything in Finishing Equipment for Woolens, Worsteds, Cottons, Synthetics

"From Loom to Delivery"

Riggs & Lombard, Inc.
Lowell, Mass.

PARKS & WOOLSON Machine Co. COOK MACHINE Co., Inc. RIGGS & LOMBARD, Inc.

Cook Machine Co., Inc.
Lowell, Mass. (Subsidiary)

Parks & Woolson Machine Co.
Springfield, Vt. (Division)

Three Great Names in One • Triple Strength • Triple Service

TEXNOVO

High speed, Automatic, Shuttleless, Narrow Fabric Looms.

*Regular weaving unit makes fabric up to 10 inches with standard selvage**

ULTRATEX Needle Loom makes fabric up to 1½ inches with knitted edge*

Both looms bring you these benefits:

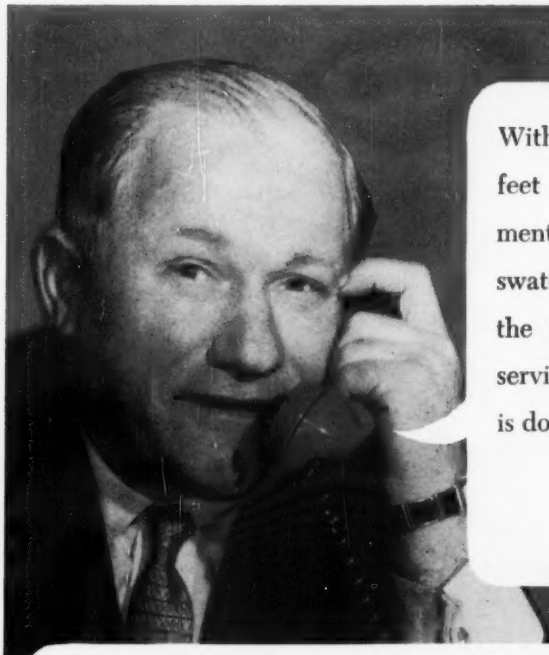
* Big Savings, High Production of both light and heavy elastic and non-elastic web.
* Filling is taken directly from cone or package.
* Speed with simplicity of operation.

See these looms at the

American Textile Machinery Exhibition
Atlantic City, May 23rd to 27th
Booths 1000 to 1102

SNEDEKER & CO. INC.
ANSONIA, CONNECTICUT

Sole selling agents in the United States and Canada.



With a superbly streamlined plant of 60,000 square feet on one floor containing the latest type of equipment, we are ready to handle the most complicated swatching operations, large or small. This assures you the finest in sample card and swatching quality and service. Your complete job, printing—swatching— binding is done under one roof, under one supervision.

Irving Warsoff
President

RELIABLE SAMPLE CARD CO.

30 Sanford Street, Brooklyn, N.Y.—ULster 5-0202

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices
Effective December 23, 1959

"Super Cordura"*

Den Fil	Turns/in	All Packages
1100-720	2	.57
1200-720	2	.57
1530-960	2	.59
1600-960	2	.52
1650-1100	2	.50
1800-1100	2	.50
2200-1440	2	.49
2400-1440	2	.49

Terms: Net 30 Days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

* "CORDURA" and "SUPER CORDURA" are DuPont's registered trade-marks for its high tenacity rayon yarn.

Industrial Rayon Corporation

Effective September 21, 1959

Unbleached Bright High Tenacity Yarns

Single End Beams and Cones—Type 100

Denier	Filament	Turns per Inch	Beams	Cones
1100	480	2.0 "Z"	.56	.56
1150	480	2.0 "Z"	.56	.56
1650	720	2.0 "Z"	.49	.49
1725	720	2.0 "Z"	.49	.49
2200	1000	2.0 "Z"	.48	.48
3300	1440	2.0 "Z"	.48	.48
4400	2000	2.0 "Z"	.48	.48

Tyrex

Tyrex Certified Viscose Tire Yarn

Denier	Filament	Twist	Beams	Cones
1100	720	Z	.57	.57
1650	1100	Z	.50	.50

Terms: Net 30 days f.o.b. point of shipment, title to pass to buyer on delivery of goods to carrier. Domestic transportation charges allowed at lowest published rate to all points in continental United States except Alaska.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

North American Rayon Corporation

Effective December 23, 1959

Super Super High Strength Continuous Yarn Type 710		Cones	Beams
1100/720	1.6Z	.57	.57
1650/720	2.0Z	.50	.50
Tire Cord Fabrics			
Super Super High Strength Type 710			**Rolls**
1100/720			.69
1650/720			.59

Terms: Net 30 days, f.o.b. shipping point. Minimum freight allowed to consignee's nearest freight station East of the Mississippi River. To points West of the Mississippi River minimum freight to Memphis, Tenn. allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold f.o.b. delivery point.

Prices are subject to change without notice.

CELLULOSIC STAPLE & TOW

ACETATE

Celanese Fibers Company

Effective March 2, 1959

Staple

(Most Deniers Available in Bright or Dull Luster)

Celanese Acetate Staple	
3, 5.5 & 8 Denier (Regular Crimp, Type HC, Type D)	$.36
2, 12 & 17 Denier (Regular Crimp, Type HC, Type D)	.37
35 Denier	.38
50 Denier	.40
Type F—5.5 & 8 Denier	.35
Type F—12 & 17 Denier	.36
Type K—(Available under Celanese License Agreement)	.39
⅝" to 7⁄8" length (All Deniers)	.03 (Premium)
35 Denier Flat Filament Acetate	.40
Non-Textile Acetate Fibers	.29*

Tow (Celatow)

3, 5.5 & 8 Denier	$.37
2, 12 & 17 Denier	.38
35 Denier	.40
35 Denier Flat Filament Acetate Tow	.42
50 Denier	.42

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

* No transportation allowed (F.O.B. shipping point.)

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

RAYON

American Viscose Corp. Current Prices

Rayon Staple

	Bright and Dull
Regular	$ .33
"Viscose 22"	.33
Extra Strength	
1.0 Denier	.36
"Avisco XL"	
1.0 Denier	.42
1.5 & 3.0 Deniers	.39
"Avisco Crimped"	
1.25 Denier	.36
3.0 & 5.5 Deniers	.34
8.0 & 15.0 Deniers	.35
"Avisco Super L"	
8.0, 15.0 & 22.0 Deniers	.36

COLORSPUN STAPLE

Color	Code	Price
	1.5 Denier 1 9/16"	
Sea Foam	517	47¢
Spun Gold	614	47¢
Cascade	419	42¢
Silver Gray	208	42¢
Bridal Rose	710	42¢
Rosewood	835	47¢
Bisque	803	42¢
Champagne	833	42¢
Sandalwood	802	42¢
	3.0 Denier 2"	
Mint Green	505	47¢
Pale Pink	708	42¢
Bisque	803	42¢
Sandalwood	802	42¢
Gold	603	47¢
Turquoise	408	42¢
Wine	304	59¢
Gray	208	42¢
Spice Brown	800	47¢

Rayon Tow

Grouped Continuous Filaments (200,000 Total Denier)	
1.5, 3.0 & 5.5 Denier Per Filament	.35
9.0 Denier Per Filament	.37

Terms: Net 30 days.

American Enka Corp.

Current Prices Effective 7/1/59

Rayon Staple

Regular Crimp

	Brt.	Dull
1.5 and 3 denier	$ .33	$ .33
High Crimp		
4.5 denier	.34	
6.5 denier	.34	.34
8 denier	.35	
15 denier	.35	.35

Celanese Fibers Company

Effective May 1, 1959

Rayon Tow

	Bright & Dull
1.5, 3, 5.5 D.P.F. Total denier 200,000	.35
8 D.P.F. Total denier 207,000	.37

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. East of Mississippi River. Transportation prepaid to any U.S.A. destination West of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

Courtaulds (Alabama) Inc.

Effective April 14, 1959

Rayon Staple

	Bright	Dull
1½ and 3 denier	$.33	$.33
Available in 1⅛", 1-9/16" and 2".		

Crimped Rayon Staple

3 and 5½ denier	$.34	$.34
Available in 1-9/16" and 3".		
3 denier		.34
Available in 2".		

Coloray® Solution Dyed Rayon Staple

Color	Price per lb.
Black	39¢
Silver Grey	41¢
Mocha	41¢
Tan	41¢
Medium Brown	41¢
Aqua	42¢
Rose	42¢
Dawn Pink	42¢
Ecru	42¢
Dark Brown	42¢
Slate Grey	45¢
Sulphur	46¢
Nugget	46¢
Light Blue	46¢
Crystal Blue	47¢
Apple Green	47¢
Sage	47¢
Peacock Blue	48¢
Medium Blue	50¢
Indian Yellow	51¢
Dark Blue	51¢
Hunter Green	51¢
Turquoise	52¢
Malachite Green	53¢
Red	58¢

News

(Continued from Page 111)

Walter M. Brice, Jr., manager of supply sales for Draper Corp. has been elected Rotary Club president.

Charles S. Fowler has joined Forbes Marketing Research, Inc. as consulting research associate specializing in marketing studies for the textile industry.

Byron Drummond has been assigned to the sales staff of Franklin Process Co. to cover metropolitan New York and Brooklyn, succeeding **Arnold Dana,** resigned, and **Harold B. Hall** has been assigned to cover Philadelphia, Northern Pennsylvania, New York State, New Jersey, Delaware, and Maryland.

Harold C. Thompson has been appointed branch manager of the New England territory for Geigy Dyestuffs Div., Geigy Chemical Corp.

Horace L. Short has been made sales representative in North Carolina for Oliver D. Landis, Inc.

R. P. Newell

Richard P. Newell has been elected vice president—Export Sales, for Leesona Corp. He succeeds **J. Alan Nasmith** who is functioning in England as managing director of Leesona Holt Ltd., subsidiary of Leesona Corp.

T. W. Morningstar has been elected executive vice president of Morningstar-Paisley, Inc.

M. J. Martin has been elected president of Penick & Ford, succeeding **Dr. J. M. Widmer,** retired.

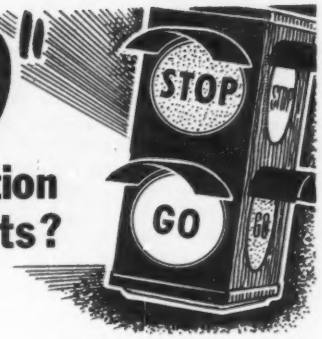
Rolla H. Taylor has been appointed sales manager for Scott Testers, Inc.

Deaths

Stephen I. Rudo, 63 director of research and development, Werner Textile Consultants.

Karl Robbins, 67, retired from active business in 1954 when he sold his stock interest in Robbins Mills, Inc. to J. P. Stevens & Co.

IS "STOP and GO" Production Robbing You of Profits?



"Stop-and-go" production of cloth is costly . . . and unnecessary when the stoppages are due to the fabric guiders. No two fabrics can be handled exactly alike. But you can eliminate a lot of time and expense by installing

MECHO AIR GUIDERS

With Mecho on the job, you can quickly adjust for the lightest fabric or #8 duck *while in operation.* . Once set, it will maintain constant cloth alignment and guide within 1/8 inch. It can't spatter or turn a double edge . . . and there are no weights or levers to fuss with. No repair problem, either.

Write today for this helpful FREE Mecho Air Guider Catalog.

THE Guider SPCIALTY COMPANY

423 W. Rock Avenue New Haven 15, Conn.

Southern Representatives: McSpadden and Scantland
P. O. Box 3635, Charlotte 3, N.C.

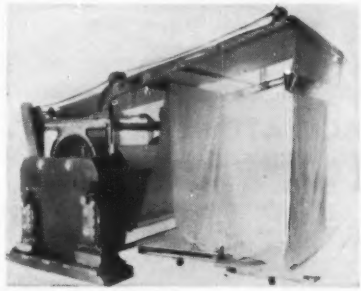
Another Outstanding Development By
The Woonsocket Napping Machinery Company

MODEL #1035, 20-ROLL, HIGH-SPEED KNIT GOODS NAPPING MACHINE

Designed for napping all types of synthetic pile linings, floor coverings and crib blankets as well as tubular fabrics made from synthetics, cotton or wool.

This machine has many features not previously incorporated in a knit goods napping machine such as geared driven ball bearing napper rolls, ball bearing carrier rolls, P.I.V. controls for napping energy, variable cloth speed driven by a P.I.V. with a range from 10 to 35 yards per minute over the cylinder.

An important feature is a variable speed feed roll also controlled by a P.I.V. which governs the tension of the cloth on the machine as well as driving a spreader roll that is invaluable for the edges on split fabrics which are inclined to roll.



This machine will be on display in Booths 1052-1106 Avenue Level at the American Textile Machinery Exhibition, Atlantic City, May 23-27.

Other high-speed napping machines on display in Woonsocket's other booths 138-143, Boardwalk Level.

WOONSOCKET NAPPING MACHINERY CO.

WOONSOCKET RHODE ISLAND

In addition to the above, Black is also available in:
1½ den. 1⅛" 5½ den. 3"
3 den. 1⅛" 5½ den. 6"
3 den. 1-9/16"

Terms: Net 30 days f.o.b. LeMoyne, Alabama: Minimum transportation allowed to points in U.S.A. east of Mississippi River.

Corval® Cross Linked Rayon

Effective April 14, 1959

Man-made, cross-linked, cellulosic staple,
Bright and Dull, 1½, 3 and 5½ denier..... $.40 per lb.

Topel® Cross-Linked Rayon

Man-made, cross-linked, cellulosic staple,
Bright and Dull, 1½, 3 and 5½ denier..... $.37 per lb.

Terms: Net 30 days f.o.b. LeMoyne, Alabama; Minimum transportation allowed to points in U.S.A. east of Mississippi River.

The Hartford Fibres Co.

Div. Bigelow-Sanford Carpet Co., Inc.

Rayon Staple

Effective November 3, 1958

REGULAR

1.5 denier Bright
1 9/16", 2" ..... .33

VISCALON 66 (Crimped)

8 denier 3" Bright ..... .35
15 denier 3" Bright ..... .35
15 denier 3" Dull ..... .35

"KOLORBON"—Solution Dyed Rayon Staple—3" and 6"

	8 Denier Bright	15 Denier Dull	15 Denier Bright
Cloud Grey	.46	.46	....
Sandalwood	.46	.46	....
Nutria	.46	.46	....
Sea Green	.46	.46	....
Mint Green	.46	.46	....
Champagne	.46	.46	....
Midnight Black	.46	....	.46
Gold	.49	.49	....
Turquoise	.46	.46	....
Melon	.49	.49	....
Capri Blue	.46	.46	....
Charcoal Grey	.46	.46	....
Coco	.47	.47	....
Sable	.48	....	.48
Tangerine	.66	....	.66
Chinese Red	.66	....	.66
Larkspur Blue	.46	.46	....
Royal Blue	.66	....	.66
Lemon Peel	.55	.55	....
Kelly Green	.52	.52	....
Bitter Green	.66	....	.66

Terms: Net 30 days. Prices are quoted f.o.b. shipping point, lowest cost of transportation allowed, or prepaid. To points West of the Mississippi, lowest cost of transportation allowed to the Mississippi River crossing.

"Zantrel" Polynosic Rayon

Effective August 14, 1959

Man-made, polynosic, cellulosic staple.
Semi-Bright, 1 denier, 1 9/16" ..... $.50 per lb.
1½ denier, 1¼" and 1 9/16" ..... .47 per lb.
3 denier, 1 9/16" and 2" ..... .47 per lb.

Terms: Net 30 days. Prices are quoted f.o.b. shipping point, lowest cost of transportation allowed, or prepaid. To points West of the Mississippi, lowest cost of transportation allowed to the Mississippi River crossing.

North American Rayon Corporation

Current Prices Effective Dec. 23, 1959

Rayon Staple

Super High Tenacity	Bright
No. 1 (Unshrunk)	
1, 1.5 & 3 deniers	.40
No. 2 (Preshrunk)	
1, 1.5 & 3 deniers	.40

Rayon Tow

High Tenacity	
2200 denier, 1.0 and 1.5 D/F	57.5
4400 denier, 1.0 and 1.5 D/F	47.5

Prices are subject to change without notice.

TRIACETATE

Celanese Fibers Company

Current Prices Effective June 7, 1957

(Most Deniers Available in Bright or Dull Luster)

Arnel Staple and Tow

Arnel Triacetate Staple	Bright & Dull
2.5 Individual Denier	$.55
5.0 Individual Denier	.55
Arnel Triacetate Tow	
2.5 Individual Denier 114,000 Total Denier	$.60
5.0 Individual Denier 90,000 Total Denier or 180,000 Total Denier	.60

Packaged on Ball Warps

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

NON CELLULOSIC YARN

NYLON

Allied Chemical Corporation

Caprolan®

Effective December 23, 1959

Denier	Filament	Turn/In.	Twist	Type**	Package	1st Grade Price/Lb.
200	16	1½	Z	B	Cone*	$1.49
200	16	1½	Z	B	Beams	1.54
200	32	¾	Z	B	Bobbins	1.49
200	32	¾	Z	B	Beams	1.54
520	32	1	Z	B	Bobbins	1.39
520	32	1	Z	B	Beams	1.44
840	136	½	Z	HBT	Al. Tubes	.97
840	136	½	Z	HBT	Beams	.97
1680	272	½	Z	HBT	Al. Tubes	.94
1680	272	½	Z	HBT	Beams	.94
1050	56	½	Z	HB	Al. Tubes	1.15
2100	112	½	Z	HB	Al. Tubes	1.11
4200	224	0	O	HB	Paper Tubes*	1.10
2100	408	0	O	HB	Paper Tubes*	.99
2500	408	0	O	HB	Paper Tubes*	.99
3360	544	0	O	HB	Paper Tubes*	.98
4200	680	0	O	HB	Paper Tubes*	.98
5000	816	0	O	HB	Paper Tubes*	.98
5800	952	0	O	HB	Paper Tubes*	.98
7500	1224	0	O	HB	Paper Tubes*	.97
10000	1632	0	O	HB	Paper Tubes*	.97
15000	2448	0	O	HB	Paper Tubes*	.97

Terms—Net 30 days.
Price subject to change without notice.
Bobbins are invoiced at 45¢ ea.
Aluminum Tubes are invoiced at 40¢ ea.
Beams are invoiced at $220.00.
Cradles for beams are invoiced at $53.00.

B—Bright
H—High Tenacity
T—Heat Stabilized

* Paper Tubes and Cones non-returnable, no charge.
** Type is used to describe luster and tenacity.

All prices quoted F.O.B. Shipping Point.

Minimum transportation charges allowed and prepaid in Continental United States, excluding Alaska.

American Enka Corporation

Enka Nylon Yarn Prices

Effective January 1, 1960

Den./Fil.	Luster*	Twist	Package	Price Per Pound Standard	Sub-Standard
15/1	SD or D	0.5 Z	Tricot Spools	4.00	....
15/1	SD or D	0.5 Z	Pirns-2 lb.	3.89	3.69
20/1	SD	0.5 Z	Pirns-1 lb.	4.95	4.50
20/6	D	0.5 Z	Pirns-2 lb.	2.96	2.61
20/6	D	0.5 Z	Tricot Spools	3.07	....
30/6	SD	0.5 Z	Pirns-2 lb.	2.36	2.21
40/8	SD	0.5 Z	Pirns-2 lb.	2.01	1.91
40/8	SD	0.5 Z	Tricot Spools	2.11	....
40/8	SD-IC	0.5 Z	Pirns-2 lb.	2.10	2.00
40/10	D	0.5 Z	Pirns-2 lb.	2.06	1.96
40/10	D	0.5 Z	Tricot Spools	2.16	....
50/13	SD	0.5 Z	Pirns-2 lb.	1.91	1.76
50/13	SD-IC	0.5 Z	Pirns-2 lb.	2.00	1.85
70/32	B-SD	0.5 Z	Pirns-2 lb.	1.71	1.66
70/32	SD-IC	0.5 Z	Pirns-2 lb.	1.80	1.75
100/32	SD-IC	0.5 Z	Pirns-2 lb.	1.74	1.69
100/32	SD	0.5 Z	Pirns-2 lb.	1.65	1.60
140/64-32	B-SD	0.5 Z	Pirns-2 lb.	1.60	1.55
140/64-32	B-SD	0.5 Z	Tricot Spools	1.70	....
140/32-64	SD-IC	0.5 Z	Pirns-2 lb.	1.69	1.64
200/16-34	B	0.6 Z	Cones-4 lb.	1.49	1.44
200/16-34	B	0.6 Z	Beams	1.54	....
200/32	SD-IC	0.5 Z	Cones-4 lb.	1.58	1.53
260/16-34	B	0.6 Z	Cones-4 lb.	1.49	1.39
400/68	B	0.6 Z	Cones-4 lb.	1.39	1.29
520/32	B	0.6 Z	Cones-4 lb.	1.39	1.29

* Luster: B—Bright; SD—Semi-Dull; D—Dull; IC—Improved Color.

Pirns invoiced at 25¢ or 45¢ each, depending on type. Deposits refunded upon return of pirns in good condition. Cones are not returnable. Spools, Beams and Racks are deposit carriers and remain the property of American Enka Corporation.

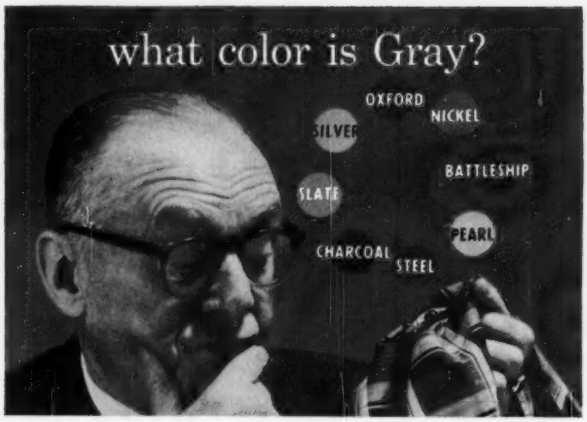
Terms: Net 30 days from date of invoice. Minimum common carrier transportation charges will be prepaid and absorbed to first destination in the continental limits of the United States excluding Alaska and Hawaii. In prepaying transportation charges, seller reserves the right to select carrier used.

All prices subject to change without notice.

The Chemstrand Corp.

Current Prices Effective January 15, 1960

Denier	Filament	Twist	Type	Package	Standard Price/Lb.	Second Price/Lb.
10	1	O	SD	Bobbins	$8.42	$7.81
15	1	O	SD	Bobbins	3.89	3.69
15	1	O	SD	Spools	4.00	....
15	1	O	Dull	Bobbins	3.89	3.69
15	1	O	Dull	Spools	4.00	....
20	7	Z	SD	Bobbins	2.91	2.61
30	10	Z	SD	Bobbins	2.36	2.21
30	26	Z	SD	Bobbins	2.49	2.21
40	10	Z	SD	Bobbins	2.01	1.91
40	13	Z	SD	Bobbins	2.01	1.91
40	13	Z	SD	Spools	2.11	....
40	13	Z	SD	Warp Wind	2.01	1.91
40	13	O	SD	Draw Wind	2.01	1.91
40	13	Z	Dull	Bobbins	2.06	1.96
40	13	Z	Dull	Spools	2.16	....
40	13	O	Dull	Draw Wind	2.06	1.96
50	17	Z	SD	Bobbins	1.91	1.76
50	17	O	SD	Draw Wind	1.91	1.76
50	17	Z	Brt.	Bobbins	1.91	1.76
50	17	Z	Brt.	Warp Wind	1.91	1.76
70	20	Z	SD	Bobbins	1.71	1.66
70	34	Z	SD	Bobbins	1.71	1.66
70	34	O	SD	Draw Wind	1.71	1.66
70	34	Z	SD	Warp Wind	1.71	1.66
70	34	Z	Brt.	Bobbins	1.71	1.66



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Gordon Textile Conferences

The Gordon Research Conferences for 1960 will be held July 11-15 at Colby Junior College, New London, N.H. Fred Fortess is chairman and H. J. White is vice chairman. Scheduled speakers and their topics follow:

July 11—A. B. Craig on Wet Spun Acrylic Fiber Structure, and W. F. McDevit on Structure and Properties of Polyamide Fibers; July 12—Ian Ward on Molecular Motion in Polyethylene Terephthalate, and C. H. Bamford, topic to be announced; July 13—H. Zollinger on Mechanism of Dyeing Polyamide Fibers, and Z. A. Zollinger on Modification of Cellulose Fiber Properties; July 14—Don Gagliardi on New Crosslinking Reactions, and Ludwig Rebenfeld on Stress-Strain Properties of Selected Cotton Fiber Types, and July 15—C. E. Reese on Relationship of Fiber and Fabric Properties to Wash and Wear Performance of Poly Fibers. Persons interested in attending the conferences may do so by writing W. George Parks, Director, at the Department of Chemistry, University of Rhode Island, Kingston, R.I.

Connor New Foster President

(Continued from Page 103)

Machine Co.—L. W. Doherty of Doherty & Murphy, G. Bemis of the Valley Trust Co., H. M. Stevens of the Hampden National Bank & Trust Co., S. F. Smith of H. B. Smith Co., William A. Fuller of American Abrasive Co., Wilbur H. Mack of Michigan Wisconsin Pipe Co., Detroit. Also elected was John W. M. Lozier, Treasurer and E. F. Bridgeman, Clerk of the Corporation.

Fiber Advertising Analyzed

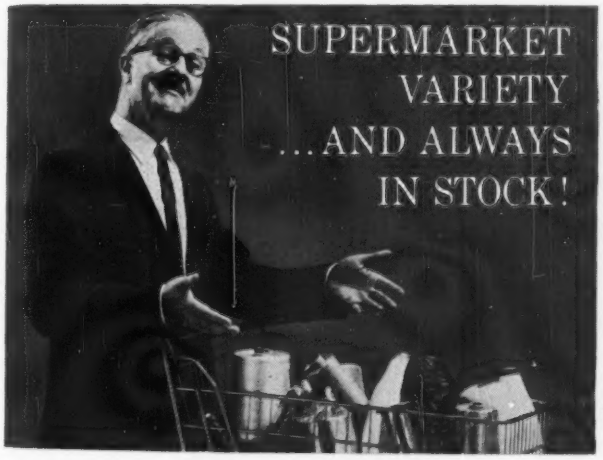
Textile fiber producers were warned recently that they must decide whether they will become heavy advertisers who merchandise their man-made-fiber trade names, or mere suppliers competing for business on the basis of price, quality and service.

Speaking at the School of Business Administration of New York University, Jay Kaner, advertising manager of American Enka Corp., pointed out that the rising tide of fiber imports at bottomless prices makes the role of "ingredient supplier" a dangerous one. He predicted that successful fiber tradenames will be merchandised like soap and cigarettes, rather than as ingredients for fabrics.

"Three pressures are forcing owners of established fiber tradenames to mount multi-million dollar TV and print programs designed to give their fiber tradenames *true* man-on-the-street recognition," Kaner said.

"The pressures are: increased demand from direct and indirect customers for some variation of cooperative advertising support; increased competition from wheeling-and-dealing merchandisers of some of the newer tradenames; and an increasing flow of imported fibers sold at go-broke prices."

The high-cost of launching and merchandising a brand new man-made fiber is creating a trend toward "fiber innovation" at the expense of new fiber development, Kaner explained. "It is far less expensive to increase your share of the market by altering the appearance or performance of an established fiber than to introduce a brand-new one. *Readers who would like to obtain the full text of Kaner's talk may do so by writing the editors.*



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70	34	O	Brt.	Draw Wind	1.71	1.66
70	34	Z	Brt.	Warp Wind	1.71	1.66
70	34	Z	HB	Bobbins	1.76	1.66
70	34	O	HB	Draw Wind	1.76	1.66
90	26	Z	SD	Bobbins	1.76	1.66
100	26	Z	SD	Bobbins	1.65	1.60
100	34	Z	SD	Bobbins	1.65	1.60
100	34	Z	HB	Bobbins	1.70	1.60
140	68	Z	SD	Bobbins	1.60	1.55
140	68	Z	Brt.	Bobbins	1.60	1.55
200	34	Z	Brt.	Bobbins	1.49	1.44
200	34	O	Brt.	Draw Wind	1.49	1.44
200	34	Z	Brt.	Spools	1.54	....
200	68	Z	SD	Bobbins	1.56	1.46
210	34	Z	HB	Bobbins	1.49	1.44
210	34	O	HB	Draw Wind	1.49	1.44
210	34	Z	HB	Warp Wind	1.49	1.44
210	34	Z	HB	Spools	1.54	....
210	34	Z	HB	Beams	1.54	....
210	34	Z	RHB	Bobbins	1.59	1.44
260	17	Z	HB	Bobbins	1.49	1.39
260	17	Z	HB	Beams	1.54	....
420	68	Z	HB	Bobbins	1.39	1.29
420	68	Z	RHB	Bobbins	1.49	1.29
520	34	Z	HB	Bobbins	1.39	1.29
630	102	Z	HB	Tubes	1.39	1.29
630	102	Z	HB	Beams	1.39	....
720	140	Z	RHB	Tubes	1.04	1.01
720	140	Z	RHB	Beams	1.04	1.01
780	51	Z	HB	Tubes	1.39	1.29
840	140	Z	HB	Tubes	.97	.94
840	140	Z	HB	Beams	.97	.94
840	140	Z	HB	Cones	1.01	.94
840	140	Z	RHB	Tubes	.97	.94
840	140	Z	RHB	Beams	.97	.94
840	140	Z	RHB	Cones	1.01	.94
840	140	Z	HB	Paper Tubes	1.01	.94
840	140	Z	RHB	Paper Tubes	1.01	.94
840	140	Z	RHB	Textile Grade —W. W.	1.12	1.01
1040	68	Z	SD	Tubes	1.15	1.05
1040	68	Z	HB	Tubes	1.15	1.05
1050	170	Z	HB	Tubes	.97	.94
1050	170	Z	RHB	Tubes	.97	.94
1680	280	Z	HB	Tubes	.94	.91
1680	280	Z	HB	Beams	.94	.91
1680	280	Z	RHB	Tubes	.94	.91
1680	280	Z	RHB	Beams	.94	.91
1680	280	Z	RHB	Cones	.97	.94

* *Types:* D—Dull; SD—Semi-dull; B—Bright; H—High tenactiy.

Bobbins are invoiced at 25¢ or 45¢, depending on type; tubes are invoiced at 40¢ each; spools invoiced at $95.00, $110.00, and $115.00, depending on type; and beams and crates for beams are invoiced at $220.00 and $25.00 respectively.

Prices subject to changes without notice.

Freight prepaid within Continental United States and Puerto Rico.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices — Nylon Yarn

Denier & Filament	Turns/Inch & Twist	Type	Package	1st Grade	2nd Grade
7-1	0	200	Bobbin	$9.47	$8.82
10-1	0	200	Bobbin	8.42	7.82
12-1	0	200	Bobbin	7.35	6.85
15-1	0	200	Beam	4.00	....
15-1	0	200	Bobbin	3.89	3.69
15-1	0	680	Beam	4.00	....
15-1	0	680	Bobbin	3.89	3.69
20-1	0	200	Bobbin	4.95	4.50
14-2	0.2Z	200	Bobbin	7.90	7.30
17-2	0.2Z	200	Bobbin	7.05	6.50
20-2	0.2Z	200	Bobbin	5.55	5.05
15-3	0.2Z	200	Bobbin	6.10	5.60
21-3	0.2Z	200	Bobbin	5.48	5.05
20-7	0.5Z	200	Bobbin	2.91	2.61
20-7	0.5Z	200	Beam	3.02	....
20-7	0.5Z	680	Bobbin	2.96	2.61
20-7	0.5Z	680	Beam	3.07	....
20-20	0.7Z	209	Bobbin	6.00	....
28-4	0.2Z	200	Bobbin	2.81	2.61
40-10	0.5Z	200	Tricot Beams	2.11	....
30-10	0.5Z	200	Bobbin	2.36	2.21
30-10	0.5Z	200	Tricot Bms.	2.46	....
30-10	0.5Z	300	Bobbin	2.51	2.36
30-10	0.5Z	680	Bobbin	2.41	2.21
30-10	0.5Z	680	Tricot Bms.	2.51	....
30-26	0.5Z	200	Bobbin	2.49	2.21
30-26	0.5Z	200	Tricot Beams	2.59	....
40-1	0	100	Bobbin	4.03	3.75
40-7	0.5Z	200	Bobbin	2.11	1.91
40-10	0.5Z	200	Bobbin	2.01	1.91
40-13	0.5Z	200	Bobbin	2.01	1.91
40-13	0.5Z	200	Tricot Bms.	2.11	....
40-13	0.5Z	400	Bobbin	2.13	1.90
40-13	0.5Z	680	Bobbin	2.06	1.96
40-13	0.5Z	680	Tricot Bms.	2.16	....
40-34	0.5Z	200	Bobbin	2.21	1.81
50-10	0.5Z	200	Bobbins	2.11	1.76
50-17	0.5Z	100/200	Bobbin	1.91	1.76
50-17	0	200	Tubes	1.91	1.76
50-17	0.5Z	680	Bobbin	2.01	1.76
60-20	0.5Z	200	Bobbin	1.82	1.65
60-34	0.5Z	300	Bobbin	1.86	1.76
70-17	0.5Z	200	Bobbin	1.71	1.66
70-34	0	100	Tubes	1.71	1.66
70-34	0.5Z	100/200	Bobbin	1.71	1.66
70-34	0	105/205	Paper Tube	1.71	1.66
70-34	0	200	Tubes	1.71	1.66
70-34	0.5Z	280	Bobbin	1.71	1.66
70-34	0.5Z	300	Bobbin	1.76	1.66
70-34	0.5Z	680	Bobbin	1.76	1.66
70-34	0	680	Tubes	1.76	1.66
80-26	0.5Z	200	Bobbin	1.71	1.60
90-26	0.5Z	200	Bobbin	1.76	1.66
100-34	0.5Z	200	Bobbin	1.65	1.60
100-34	0.5Z	300	Bobbin	1.70	1.60
100-34	0	300	Tubes	1.70	1.60
100-34	0.5Z	680	Bobbin	1.70	1.60
100-50	0.5Z	200	Bobbin	1.71	1.60
110-50	0.5Z	200	Bobbin	1.71	1.60
140-68	0.5Z	100	Bobbins	1.60	1.55
140-68	0	200	Tubes	1.60	1.55
140-68	0.5Z	200	Bobbin	1.60	1.55
140-68	0	205	Tube	1.60	1.55
140-68	0.5Z	300	Bobbin	1.65	1.55
200-20	1Z	100	Bobbin	1.49	1.44
200-34	0	100	Tubes	1.49	1.44
200-34	0.7Z	100	Bobbin	1.49	1.44
200-34	0	105	Tube	1.49	1.44
200-34	0.7Z	680	Bobbin	1.54	1.44
200-68	0.7Z	100/200	Bobbin	1.56	1.46
210-34	0	300	Tubes	1.49	1.44
210-34	0.7Z	300	Bobbin	1.49	1.44
210-34	0.7Z	300	Beam	1.54	....
210-34	0	305	Tube	1.49	1.44
210-34	0.7Z	330	Bobbin	1.59	1.44
260-17	1Z	300	Bobbin	1.49	1.39
400-68	0.7Z	100	Bobbin	1.39	1.29
420-68	1Z	300	Bobbin	1.39	1.29
420-68	1Z	300	Beams	1.44	....
520-34	1Z	300	Bobbin	1.39	1.29
630-102	0.7Z	300	Bobbin	1.39	1.29
780-51	1Z	300	Bobbin	1.39	1.29
800-140	0.5Z	100	Bobbin	1.39	1.29
840-140	0.5Z	300/700	Al. Tbs. & Beams	.97	.94
1680-280	0.5Z	300/700	Al. Tbs. & Beams	.94	.91

Color-Sealed Yarn

Denier & Filament	Turns/Inch & Twist	Type	Package	1st Grade	2nd Grade
30-10	0.5Z	140	Bobbin	$2.71	$2.56
40-13	0.5Z	140	Bobbin	2.36	2.16
70-34	0.5Z	140	Bobbin	2.06	2.01
100-34	0.5Z	140	Bobbin	2.00	1.95
100-34	0	140	Tubes	2.00	1.95
200-20	0.7Z	140	Bobbin	1.84	1.79
200-34	0.7Z	140	Bobbin	1.84	1.79
260-17	1Z	140	Bobbin	1.84	1.79

Industrial Yarn				Price/Lb.
840-140	0.5Z	*707	Cone	.97
5040-840	0	*707	Paper Tube	1.01
7560-1260	0	*707	Paper Tube	1.00
10080-1680	0	*707	Paper Tube	1.00
15120-2520	0	*707	Paper Tube	1.00

* Made specifically for cordage use.

2520-420	0	700	Paper Tube	.99
4200-700	0	700	Paper Tube	.98
5040-840	0	700	Paper Tube	.98
7560-1260	0	700	Paper Tube	.97
10080-1680	0	700	Paper Tube	.97
15120-2520	0	700	Paper Tube	.97

These prices are subject to change without notice. Terms: Net 30 Days.

Types

Type 100—Bright, normal tenacity.
Type 105—Bright, normal tenacity, low shrinkage (5-7%)
Type 140—Bright, color-sealed, black, normal tenacity.
Type 200—Semidull, normal tenacity.
Type 205—Semidull, normal tenacity, low shrinkage (5-7%)
Type 209—Semidull, normal tenacity, improved light durability and dye light fastness.
Type 280—Semidull, normal tenacity, improved light durability and dye light fastness.
Type 300—Bright, high tenacity.
Type 305—Bright, high tenacity, low shrinkage (5-7%)
Type 330—Bright, high tenacity, more heat & light resistant.
Type 400—Semidull, high tenacity.
Type 680—Dull, normal tenacity.
Type 700—Bright, high tenacity.
Type 707—Bright, high tenacity cordage yarn.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Following are invoiced as a separate item.
Bobbins—25 cents or 45 cents depending on type
Aluminum Tube—40¢ each
Draw Winder Tubes—$.70 or $1.00 depending on type
Tire Cord Beams—$220.00 each
Cradles for Tire Cord Beams—$115.00 each
Tricot Beams—$95.00 each
Cradles for Tricot Beams—$130.00 each
(Beams and Cradles are deposit carriers and remain the property of E. I. du Pont de Nemours & Co., Inc.)

POLYESTER

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices — "Dacron"*

Denier & Filament	Turns/Inch	Luster	Type*	Tubes 1st Gr.
30-14	0	Bright	55	$2.71
30-20	0	Semidull	56	2.71
40-27	0	Semidull	56	2.31
40-27	0	Bright	55	2.31
40-27	0	Dull	57	2.36
70-34	0	Semidull	56	1.91
70-14	0	Bright	55	1.91
70-34	0	Bright	55	1.91
70-34	0	Dull	57	1.96
100-34	0	Semidull	56	1.84
140-28	0	Bright	55	1.79
150-34	0	Semidull	56	1.79
220-50	0	Bright	51	1.76
250-50	0	Bright	55	1.76
1100-250	0	Bright	51	1.50
1100-250	0	Bright	52	1.50

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the Continental limits of the U. S., excluding Alaska.

Yarn Types

* Type:
Type 51—Bright, high tenacity.
Type 52—Bright, high tenacity.
Type 55—Bright, normal tenacity.
Type 56—Semidull, normal tenacity.
Type 57—Dull, normal tenacity.

Tubes are invoiced as a separate item at $.70 each.

* "DACRON" is DuPont's registered trade-mark for its polyester fiber.

SARAN

The National Plastics Products Company—Fibers Division
Odenton, Maryland

Current Prices:

CONTINUOUS FILAMENT

Type	Twist p. i.	Natural	Colors
1240/10	3	$1.32	$1.37
750/20*	3	1.75	1.80

* For filter fabrics and other industrial purposes only.

F.O.B. Odenton, Maryland.

Terms: Net 30 days.

NON CELLULOSIC STAPLE & TOW

ACRYLIC

American Cyanamid Co.
Fibers Division

Effective Date: November 24, 1959

Cyanamid Acrylic Staple

	1st Grade Price (per pound)
2.0 Denier Bright and Semi-Dull	$1.28
3.0 Denier Bright and Semi-Dull	1.18
5.0 Denier Bright and Semi-Dull	1.18
15.0 Denier Bright, Semi-Dull and Dull	.93

Staple Lengths: 1½", 2" 2½", 3", 3½", 4", 4½".

Information provided on request for Deniers, Lengths and Lusters not listed above.

Prices are subject to change without notice.

Terms: Net 30 Days.

F.O.B. Shipping Point—Minimum transportation allowed (Seller's route and method) within the continental limits of the United States excluding Alaska. If Buyer requests and Seller agrees to a route or method involving higher than minimum rate, Buyer shall pay the excess transportation cost.

Note: CRESLAN® is Cyanamid's registered trademark for certain of its acrylic fibers. Use of this trademark is authorized only on properly constructed fabrics, after they have been tested and approved by Cyanamid.

The Chemstrand Corp.

Current Prices "Acrilan"*

Effective January 1, 1959

	Acrilan	Acrilan 16
2.0 denier Semi-Dull and Bright staple & tow	$1.18	$1.18
2.5 denier Hi-Bulk Bright and Semi-dull staple and tow	1.18	1.18
3.0 denier Bright & Semi-dull staple & tow	1.18	1.18
5.0 denier Bright & Semi-dull staple & tow	1.18	1.18
8.0 denier Bright & Semi-dull staple	1.18	1.18
15.0 denier Bright & Semi-dull staple	.93	.97

Terms: Net 30 days. Freight prepaid within Continental U. S. & Puerto Rico.

* "Acrilan" is Chemstrand's registered trademark for its acrylic fiber.

The Dow Chemical Company

Textile Fibers Department Current Prices

"Zefran"* Acrylic Staple

2.0 denier Semidull & Bright—Staple only	$1.28
3.0 denier Semidull & Bright—Staple only	1.28
6.0 denier Semidull & Bright—Staple only	1.18
100% Blends of ZEFRAN acrylic fiber (For the Woolen System)	
Type W-2 (average denier of about 2.5)	$.99
Type W-4 (average denier of about 4.5)	.94

Terms: Net 30 days.

Transportation Terms: F.O.B. shipping point—Freight prepaid our route within the continental limits of the U. S., excluding Alaska.

* Registered trademark of The Dow Chemical Co.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

"Orlon"* Acrylic Staple & Tow

Type 42	Staple Length	Tow Bids.	1st Grade
1.0 Denier Semidull	1¼, 1½, 2, 2½, 3	420M	$1.28
2.0 Denier Semidull & Bright	1¼, 1½, 2, 2½, 3, 4½	470M	1.28
3.0 Denier Semidull & Bright	1¼, 1½, 2, 2½, 3, 4½	470M	1.28
3.0 Denier Color-sealed Black	1¼, 1½, 2, 2½, 3, 4½	470M	1.63
6.0 Denier Semidull & Bright	1½, 2, 2½, 3, 4½	470M	1.18
6.0 Denier Color-sealed Black	1½, 2, 2½, 3, 4½	470M	1.55
4.5 Denier Semidull	1½, 2, 2½, 3, 4½	470M	1.18
10.0 Denier Semidull & Bright	1½, 2, 2½, 3, 4½	470M	1.18
10.0 Denier Color-sealed Black	1½, 2, 2½, 3, 4½	470M	1.55

Tow—Total Denier 470,000

Staple Lengths—1½", 2", 2½", 3", 4½"

High Shrinkage Staple price as Regular Staple

Type 25 $1.18

This product is designed for *Cotton/Rayon System* Spinning and is 2.5 denier, 1½" semidull regular shrinkage staple.

Type 38—4.1 Denier—Semidull—592M Tow $1.18

This product can be dyed, stretched and cut to produce staple which will shrink as much as 38% when subjected to heat.

Type 39 $.94

This product is designed for *woolen system spinning* and is a blend of deniers (average 4.2) with a variable cut length.

Type 39A $.99

This product is designed for *woolen system spinning* and is a blend of predominately fine deniers (average 2.4) with a variable cut length.

Type 39B $.94

This product is designed for *woolen system spinning* and is a blend of predominately heavy deniers (average 6.5) with a variable cut length.

"ORLON SAYELLE"**

3.0 denier semidull variable (average 3¼") staple	$1.53
6.0 denier semidull variable (average 3¼") staple	1.50

F.O.B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

* "ORLON" is Dupont's Registered Trade-mark of its Acrylic Fiber.

"ORLON SAYELLE"** is Dupont's Trade-mark for its bi-coponent Acrylic fiber.

MODACRYLIC

Eastman Chemical Products, Inc.
Tennessee Eastman Co.

Effective November 3, 1958

"Verel"* Staple and Tow

Deniers	Dull and Bright
3	$1.02 per pound
5, 8, and 12	.92
16 and 20	.88
24 denier	.93

Prices are subject to change without notice.

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Verel" is a trade-mark of the Eastman Kodak Co.

Union Carbide Chemicals Co.

Div. Union Carbide Corp.

Textile Fibers Dept. Effective October 1, 1957

Dynel Staple & Tow

Natural Dynel	
3, 6, and 12 Denier, Staple and Tow	1.10 per lb.
24 Denier, Staple and Tow	1.05 per lb.
Dynel Spun with Light Colors:	
Blond, Pewter, or Gray	
3 and 6 Denier, Staple and Tow	1.30 per lb.
Dynel Spun with Dark Colors:	
Black, Charcoal, Brown, Caramel, Green, and Blue	
3 and 6 Denier, Staple and Tow	1.40 per lb.
Dynel Type 63 High Shrinkage (3 Denier only)	Add $.05 per lb. to above prices

Prices are quoted f.o.b. South Charleston, W. Va.

NYLON

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

Nylon Staple and Tow

Denier	Type	Staple Lengths	Tow Bundle	1st. Grade Price/Lb.	2nd Grade Staple Only
1.5	200	1½"—4½"	None made	$1.33	$1.18
1.5	201	1½"—4½"	None made	1.35	1.20
2.3	420	1½" only	None made	1.28	1.13
3.0	100/200	1½"—4½"	430M	1.28	1.13
3.0	101/201	1½"—4½"	455M	1.30	1.15
6.0	100	1½"—6½"	330M	1.28	1.13
6.0	101	1½"—6½"	345M	1.30	1.15
15.0	100	1½"—6½"	425M	1.08	....
15.0	101	1½"—6½"	None made	1.10	....
15.0	600	1½"—6½"	425M	1.10	....
15.0	601	1½"—6½"	None made	1.12	....

Staple lengths are restricted to the range shown opposite each denier above. The actual cut lengths within these ranges are as follows:

1½, 1½, 2, 2½, 3, 4½ and 6½

Types

Type 100 Bright, normal tenacity, not heatset.
Type 101 Bright, normal tenacity, heatset.
Type 200 Semidull, normal tenacity, not heatset.
Type 201 Semidull, normal tenacity, heatset
Type 420 Semidull, high tenacity, high modulus, no crimp.
Type 600 Dull normal tenacity, not heatset.
Type 601 Dull normal tenacity, heatset.

These prices are subject to changes without notice.

Terms—Net 30 Days.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Industrial Rayon Corp.

Effective August 18, 1958

Nylon Staple

1.5 denier	$1.33 per lb.
2, 3 and 6 denier	1.28 per lb.
8 denier	1.15 per lb.
15 and 22 denier	1.08 per lb.

Bright, semi-dull, and full-dull. Required lengths.

NYTRIL

Celanese Fibers Company

DARVAN

Effective Nov. 21, 1958

Type	Price Per Pound Not Crimp Set	Crimp Set
3, 4½ and 6 Denier	$1.45	$1.50
1½, 2 Denier	$1.50	$1.55

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Pack in 100 Lb. Bales, Net
Staple lengths 1½, 2, 3, 4½
Tow—90,000 Total Denier
Bright, Semi-dull, Dull

(Deniers and lengths of staple not listed above are available upon special request.)

Terms: Net 30 Days.

F.O.B. Shipping Point (Avon Lake, Ohio) Minimum freight prepaid our route to points east of the Mississippi River within the continental limits of the United States, for points west of the Mississippi River freight allowed to the Mississippi River crossing nearest purchaser's mill if overland, or port of exit of purchaser's choice east of the Mississippi River.

POLYESTER

Beaunit Mills Inc.

Vycron Polyester

Effective: November 20, 1959

	Denier		Price Per Lb.
	1.5		$1.26
	3.0		1.36
Staple Cuts are 1½", 2", 3", and 4".			
Tow for Converters	1.5		1.36
(Tow Bundle 200,000 Denier)	3.0		1.36
1 Den.	1.5 Den.	3 Den.	
Tow Yarn for Direct Spinners	420/280	420/140	1.65
and Coarse Denier Yarns	840/560	840/280	1.60
1120/1120			1.49
No Twist Tubes	1260/840	1260/420	1.36
	1680/1120	1680/560	1.36
2240/2240			1.45
	3360/2240	3360/1120	1.36

Terms: Net 30 days, F.O.B. shipping point. Minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight to Memphis, Tenn. allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F.O.B. delivery point. Prices subject to change without further notice.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

"Dacron"** Staple and Tow

Denier	Luster	Type*	Length	Tow Bundle	1st Gr.
1.25	Semidull	54	1¼"-3"	None made	$1.36
1.5	Semidull	64	Tow only	550M	1.41
1.5	Semidull	54	1¼"-1½"	None made	1.26
2.25	Semidull	54	1¼"-4½"	450M	1.41
3.0	Semidull	64	1¼"-4½"	450M	1.41
3.0	Semidull	54	1¼"-4½"	450M	1.36
3.0	Semidull	61	1¼"-4½"	None made	1.36
4.5	Semidull	64	1¼"-4½"	450M	1.36
4.5	Semidull	54	1¼"-4½"	450M	1.31
6.0	Semidull	64	1¼"-4½"	450M	1.36
6.0	Semidull	54	1¼"-4½"	450M	1.31
6.0	Semidull	61	1¼"-4½"	None made	1.31

* Type:
Type 54—Semidull, Normal Tenacity.
Type 61—Industrial Staple having 45% Shrinkage. Not intended for Dyeable Uses.
Type 64—More Pill Resistant Staple, with Greater Dyeing Versatility.

F. O. B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

** Dupont's Registered Trade-mark for its Polyester Fiber.

Eastman Chemical Products, Inc.

Tennessee Eastman Co. Effective September 15, 1958

"Kodel"*

Deniers	Semi-Dull	Black
1½	$1.33	
2.25		$1.79
3 and 4½	1.44	1.79

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Kodel" is a trade-mark of the Eastman Kodak Company.

VINYON

American Viscose Corp. Effective October 1, 1956

Avisco Vinyon Staple

3.0 denier ½" unopened	$.80 per lb.
3.0 " 1¼" unopened	.80 per lb.
3.0 " 1¾" opened	.90 per lb.
3.0 " 2" opened	.90 per lb.
3.0 " 2" unopened	.80 per lb.
5.5 " 1" opened	.90 per lb.
5.5 " 3½" opened	.90 per lb.
5.5 " 3½" unopened	.80 per lb.

Terms: Net 30 days.

SARAN

The National Plastics Products Company—Fibers Division
Odenton, Maryland

Current Prices: Saran Staple

Type	Denier	Natural	Colors
2N—Upholstery	22	$0.70	$0.75
2N—Upholstery	16	.74	.79
3Q—Industrial Fabrics	22	.68	.72
1C—Carpets	22	.68	.72
1M—Mops	22	.68	.72

In any staple length 1½ to 6". Also 45 denier, 7" cut.
F.O.B. Odenton, Maryland.
Terms: net 30 days.

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Calendar of Coming Events

May 4—ACMI Fiber Testing Laboratory, open house. Clemson House, Clemson, S. C.
May 4—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
May 5—National Knitted Outerwear Association annual banquet. Waldorf-Astoria, New York, N. Y.
May 5-6—AIEE conference on electrical applications in textiles. Heart of Atlanta Motel, Atlanta, Ga.
May 6—AATCC Western New England Section (ladies' night). Rapp's Paradise Inn, Ansonia, Conn.
May 7—Alabama Textile Operating Executives' slashing and weaving discussion. Thach Auditorium, Auburn, Ala.
May 11-14—Carolina Yarn Association. The Carolina, Pinehurst, N. C.
May 13—AATCC Northern New England Section. Lowell Textile Institute, Lowell, Mass.
May 13-14—AATCC South Central Section outing. Riverside Hotel, Gatlinburg, Tenn.
May 17-18—Conference on Fiber Blends. Quartermaster R. & E. Command, Natick, Mass.
May 19-21—Georgia Textile Manufacturers Association, anniversary meeting. Diplomat Hotel and Country Club, Hollywood, Fla.
May 23-27—American Textile Machinery Exhibition. Auditorium, Atlantic City, N. J.
May 25-27—Narrow Fabrics Institute, Inc. spring meeting. Atlantic City Country Club, Northfield, N. J.
May 25-28—Tufted Textile Manufacturers Association annual convention. Fontainebleau Hotel, Miami Beach, Fla.
May 26-28—S. C. Textile Manufacturers' Association annual meeting. The Cloister, Sea Island, Ga.
May 30-Jun. 3—Textile Institute annual conference—fiber science. London, Engl.
May 31-Jun. 2—Cotton Research Clinic. Grove Park Inn, Asheville, N. C.
Jun. 1—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
Jun. 23-25—Southern Textile Association annual convention. Grove Park Inn, Asheville, N. C.
Jun. 26-Jul. 1—ASTM annual meeting. Chalfonte-Haddon Hall, Atlantic City, N. J.
Jul. 11-15—Gordon Research Conferences, Textile Sessions. Colby Junior College, New London, N. H.
Sep. 7-8—Combed Yarn Spinners Association annual meeting. Greenbrier, White Sulphur Springs, W. Va.
Sep. 8—Textile Quality Control Association meeting. Clemson House, Clemson, S. C.
Sept. 8-9—Combed Yarn Spinners Association. The Cloister, Sea Island, Ga.
Sep. 15—Chattanooga Yarn Association annual outing. Read House, Chattanooga, Tenn.
Sep. 27-28—Chemical Finishing Conference, sponsored by National Cotton Council. Statler Hotel, Washington, D. C.
Oct. 3-7—Southern Textile Exposition. Textile Hall, Greenville, S. C.
Oct. 5-8—Carded Yarn Association annual meeting. Grove Park Inn, Asheville, N. C.
Oct. 6-8—AATCC national convention. Sheraton Hotel, Philadelphia, Pa.

Index to Advertisers

(*See previous or subsequent issues)

Allen Beam Co. .....
Allen Warper Co. .....
Allentown Bobbin Works, Inc. 109
Allied Chemical Corp.
National Aniline Div. 30, 37
Semet-Solvay Petrochemical Div. .....
Solvay Process Div. .....
Althouse Chemical Co. 81
American Bemberg .....
American Cyanamid Co. .....
American Enka Corp. 20
American Lava Corp. ..... IV Cover
American Tex. Mach-Exhibition
American Viscose Corp. .....
Apex Chemical Co., Inc. 7
Arkansas Co., Inc. .....
Arnold Hoffman & Co. .....
Atlantic Rayon Co. 117
Atlas Electric Devices Co. .....

Barber-Colman Co. 82
Beaunit Mills, Inc. 10
Belle Chemical Co. .....
Borregaard Co., Inc., The .....
Butterworth & Sons Co., H. W.

Celanese Corp. of America
Fibers Div. 42, 43
Ciba Company, Inc. .....
Chandler Machine Co. .....
Chemstrand Corp. .....
Clements Mfg. Co. .....
Cocker Machine & Foundry Co. .....
Collins Supply and Equipment Co. .....
Corn Products Sales Co. .....
Courtaulds (Alabama), Inc. 18
Croon & Lucke GMBH 73
Crompton & Knowles Corp. 12, 13
Curlator Corp. 23

Dary Ring Traveler Co. .....
Davison Publishing Co. .....
Dayton Rubber Co., The 57
Dobson & Barlow, Ltd. .....
Dommerich & Co., Inc., L. F. 103
Dow Chemical Co., The .....
Draper Corporation 17, 60, 61
II Cover
Duplan Corp. 53
Du Pont de Nemours & Co., E. I.
Dyestuffs Department .....
Textile Fiber Department 14, 15

Eastman Chem. Pro. Inc. .....
Englehard Industries, Inc
Baker Platinum Div. 21

Fancourt Co., W. F. .....
Fiske Bros Refining Co.
Lubriplate Division .....
Fletcher Industries 77
Forbes Marketing Research, Inc. 120
Foster Machine Co. .....
Franklin Process Co. .....

Garland Mfg. Company 104
Gaston County Dyeing Machine Co. 51
Geigy Chemical Corp. .....
Gessner Co., David .....
Globe Dye Works Co. 72
Goodyear Tire & Rubber Co.
Chemical Div. .....
Guider Specialty Co., The 115
Gulf States Utilities Co. .....

Hart Products Corp. 49
Heany Industrial Ceramic Co. 40, 41
Heresite & Chemical Co. .....
Herr Mfg. Co., Inc. 9
Hoffner Rayon Co. .....
Howard Bros. .....

Industrial Rayon Corp. 38
Interchemical Corp. .....
Iselin-Jefferson Financial Co. Inc. .....

Kenyon-Piece Dyeworks, Inc 44
Kidde Manufacturing Co., Inc. 25, 67
Knitting Arts Exhibition .....
Koppers Company Inc. 19

Lambertville Ceramic & Mfg. Co. 6
Laurel Soap Mfg. Co. 70
Leatex Chemical Co. .....
Leesona Corporation 64
Loper Company, Ralph E. 120
Lubriplate Division, Fiske Bros. Refining Co. .....

Madden's Textile Ceramics, Inc. 109
Malina Company 117
Marshall & Williams Corp. 109
McBride Co., Inc., E. J. 75
Metlon Corp. .....
Milton Machine Works, Inc. 111
Mitchell-Bissell Co. 55

National Drying Machinery Co. Lubricant Co. 47
National Starch & Chem. Corp. 29
National Vulcanized Fibre Co. Lestershire Spool Div. .....
Neufield and Lall .....
New York & New Jersey Lubricant Co. .....
Nopco Chemical Co. 24

Onyx Oil & Chemical Co. .....

Perkins & Son, Inc., B. F. .....
Polymer Industries .....
Portland Company .....
Putnam Chemical Corp. 63

Reiner, Inc., Robert .....
Reliable Sample Card Co., Inc. 113
Riggs & Lombard, Inc. 113
Riordan Sales Corp., Ltd. 39
Roberts Company 5
Rhodia, Inc. 26
Rusch & Co. .....

Saco-Lowell Shops 71
Sandoz, Inc. .....
Sargent's Sons Corp. C. G. 106
Scholler Bros. ..... III Cover
Scott & Williams, Inc .....
Scott Testers, Inc. 69
Scragg, Ernest & Sons, Ltd., ... 78, 79
Simco Co., Inc. 120
Snedeker & Co., Inc. 113
Sonoco Products Co. 3
Southern Shuttle Div.
Steel Heddle Mfg. Co. 27
Standard Chemical Products, Inc. .....
Stauffer Chemical Company...
Steel Heddle Mfg. Co. 27

Talcott, James, Inc. .....
Terrell Machine Co. 16
Textile Banking Co. 8
Textile Hall Corp. .....
Textile Machine Works 11
Trapahagen School of Fashion
Trumeter Co. 111
Turbo Machine Co. .....

Union Carbide Chem Co.
Div. Union Carbide Corp.
Chemical Dept. .....
Textile Fibers Dept. 22
U. S. Ring Traveler Co. .....
U. S. Textile Machine Co. .....
Uster Corp. .....

Verona Dyestuffs .....
Von Kohorn International Corp. .....

Walton & Lonsbury 105
Whitin Machine Works 28
Whitinsville Spinning Ring Co. 59
Woonsocket Napping Mach. Co. 115

BUSINESS SERVICE

Bertner Yarns Co. 121
Chas. P. Raymond Service Inc. 121
Celanese Fibers Co. 121

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